

Cub Scout Pack 24 PINWOOD DERBY!

RULES AND INSTRUCTIONS

The Pinewood Derby is open to all Cub Scouts. *Cars should be built by the Cub Scouts with some adult guidance.* Any technical assistance should be fully explained to the Cub Scout so that he can use that knowledge on future projects.

CAR SPECIFICATIONS – every racer must meet these dimensions:

Maximum width: 2.75 inches
Maximum length: 7.00 inches
Maximum height: 6.00 inches
Minimum width between wheels: 1.75 inches
Bottom clearance between car and track: 0.38 inch
Maximum weight: 5.0 ounces

RULES

1. The OFFICIAL GRAND PRIX PINWOOD DERBY KIT (KIT NO. 17006) must be used. Each Scout will be issued one of these kits by the Pack.
2. CAR BODY: The wood provided in the official kit must be used. The block may be shaped and decorated in any way that is not prohibited by the rules or specifications. Details such as steering wheel and driver are permissible as long as these details do not exceed the maximum length, width, height and weight specifications.
3. NOSE DESIGN: The starting pin is a round metal pin that extends perpendicular to the track from the center of the lane to hold the cars at the start of the race. Cars should be made so that they have a flat surface on the front to rest against the pin. Cars made without a flat surface on the nose (those which are pointed, rounded, tapered, etc.) may be entered, but only at the Scout's risk, because they may not work well with the starting pins. No part of the car may extend forward of the rear of the starting pin when the car is placed against the pin for the start.
4. WHEELS: **The official Cub Scout Grand Prix Pinewood Derby wheels supplied with the kit must be used, or official Pinewood Derby replacement parts.** The only modification allowed to wheels is removal of burrs and molding flash (excess plastic). No sanding, shaping, or other modifications of the wheel are allowed. The wheels may not be cut, drilled, beveled or rounded.
5. AXLES: **The official Cub Scout Grand Prix Pinewood Derby axles supplied with the kit must be used.** They may be polished and/or lubricated. Wheel bearings, washers, and bushings are prohibited. The car shall not ride on springs. Only dry lubricant is permitted. No wet lubricants, e.g., WD40 are permitted. The car must be free-wheeling, with no starting devices. No loose material of any kind, such as lead shot, or moving parts may be used.
6. INSPECTION: Each car must pass inspection by the Pack 24 Pinewood Derby officials before it may compete. Inspection will consist of checks of overall width, overall height, proper wheels, proper axles, and weight, followed by a trial run down the track. **Any car which does not travel from the starting line to the timing sensors without assistance will not be permitted to compete in the Derby.**
7. If a car does not pass inspection, the Scout will be informed immediately of the reason for failure, and will be given time within the official inspection time period to make the adjustment. Scouts are free to bring tools and materials to adjust their cars to pass inspection. After final approval, cars will be impounded by the officials until racing is completed. Cars will not be re-inspected unless the car is damaged in handling or in a race.
8. **Your car must have ONLY YOUR assigned number clearly visible on the car.** Your Pinewood Derby car kit has a sticker on with with your name and Car Number. Using the numbered stickers from the kit, be sure your Car Number is visible on the rear of the car. Also, write your name on the bottom of your car.
9. All decisions of the Pack 24 Pinewood Derby officials are final.

PINEWOOD DERBY FAQs

Can my dad build my car? Your dad (mom, grandpa, or cousin Fred) can help you, especially with cutting pieces, etc. but this is supposed to be done by the Scout, with adult supervision/assistance.

How do I make the car go fast? The most important piece of advice is to bring the car as close as possible to the 5.0 ounce weight limit. The materials in the box weigh about 5 ounces, and will be much less if you decide to cut the car block for your design. You can add weights (found at the Scout Store, or at hobby shops in the area) to bring your car to the correct weight, or use coins, bolts, etc. as long as they do not move during the race. The scales owned by the Pack are the official scales – you will be able to check your weight starting at 10:00 am on race day.

The second most important piece of advice is to reduce friction as much as possible within the rules. That means polishing/smoothing the axles, using adequate lube on the wheels and axles and making sure the car runs as straight down the track as possible. Also, the Internet has a lot of good (and bad) advice available. **Ask the other scouts what has worked for them in prior years.**

Can I buy PineCar wheels or axles, “speed” wheels or 1 piece axles for my car? NO! The intent is to use the equipment in the box, to keep things as even as possible. If you damage the pieces in the box, you can purchase replacement pieces at the scout store. You may use the decorative/weighting pieces they offer.

Do I have to use the slots cut in the wood block for my axles? No, you can widen or shorten the wheelbase as you like. Be sure to keep the bottom clearance above 0.38 (3/8”) inch.

Do I have to make my car fancy? No – I’ve been told that boys have won their pack’s Pinewood Derby using the wood block without cutting it at all, simply putting the wheels on it and painting it. Aerodynamics are not super important to success. However, to win the “**Fastest Looking**”, “**Coolest Car**” or “**Best Paint Job**” award, a little effort will be necessary.

Does my car have to look like a car, or can I make it look like (put in your own suggestion here)? The car can look like anything you want (within the boundaries of good taste), as long as it can make it down the track, and meets the other specifications. You might even win an award for the way it looks!

Can I put a hula girl on my car? Sure, AS LONG AS IT FITS IN THE LENGTH, HEIGHT, WIDTH and CLEARANCE SPECIFICATIONS LISTED ABOVE. AS STATED IN RULE 5, YOU CANNOT HAVE PIECES THAT MOVE DURING THE RACE.

What happens if my car breaks during the morning fun races on Saturday? You will have to have it qualified and working by the check-in deadline (set for 12 noon Saturday). If it breaks during practice or fun runs, you will have to fix it. There will be a tool area set up at RPC Saturday morning should anything happen, and to help you qualify your car.

What if someone else damages my car? The derby officials will investigate and punish any deliberate attempts to damage another scout’s car. Please avoid any accidents by keeping your car near you until you have checked it in for racing. Scouts will not be able to handle their car after it is checked in.

Will there be food available during the races? *Girl Scout Troop 657* will be selling food during lunchtime in the social hall on Saturday before the races.

Can my brothers and sisters come? Yes, all family members are welcome. However, space is limited on the gym floor.

What will we do when I’m not racing? Mainly, watch everyone else race. We will have other activities set up, but we want to focus on racing. Please stick around because some races take place quickly and we don’t want you to miss your son’s race.

GOOD LUCK!