

Pack 23 Pinewood Derby Official Rules 2019

Scouts Compete in Two Categories: Speed & Design

General Rules:

- Only one car per registered Cub Scout may be entered.
- Once inspected and accepted the car may not be altered in any way.
- The car entry must have been built for this year's race.

Car Dimension Rules:

- Car size shall not exceed: Width 2-3/4" (including the wheels)
- Width between wheels where they contact the body must be at least 1-3/4"
- Length 7" (some blocks are longer)
- Height 4 1/2" (including all trim items)

Car Design Rules:

- Car weight shall not exceed: 5.00 ounces (141.37 grams), as measured at the weigh in on the Pack's scale.
- The car must have at least 3/8" under-clearance from the wheel rolling surface to the bottom of the car (between the wheels).
- Axles, wheels and body must be from the materials provided in the official BSA pinewood derby car kit. Anything else must be approved in advance.
- Additional trim items are allowed as long total weight doesn't exceed maximum weight and size.
- The furthest forward part of the car must be centered and wide enough to support the car on the track's starting arm. No trim is allowed on the sides which might protrude further forward than the starting arm.
- Wheel bearings, bushings and washers are not permitted.
- The car may not ride on springs or other suspension.
- The car must be freewheeling and gravity powered. No auxiliary form of propulsion is allowed including motors, rubber bands, rockets or magnetic devices.
- No loose materials (weights, characters or trim) are permitted. Fasten all securely.
- Do not alter the wheel shape or profile. You may eliminate burrs and molding marks, but cannot grind the wheel so it has a lower profile.
- All four wheels must contact the ground and roll when tested during inspection. Any cars with one or more wheels off the ground will not be accepted.

- Cars may not be modified after being accepted for technical checks (except for emergency repairs).
- Dry/Powdered lubrication may be used BEFORE THE RACE but not during and should be applied such that excess doesn't foul track surface.



Other General Advice & Information

Please pay special attention to the dimension limits specified. They are designed to:

- A) allow the car to ride on the track unencumbered and without bumping other cars, and
- B) to be fair to all entrants.

Proxy Racing: It is seldom that all Cub Scouts can attend every event, even the Pinewood Derby. Because of sickness, schedule conflicts or other reasons if your Scout cannot race his car, he may appoint a substitute racer. The Proxy racer may be a parent, Scout, Den or Pack Leader. This will allow the Scout to still have a chance to find out if his car was really the fastest or best-designed (or whatever) on derby night.

Car Lubrication and Other Modifications during the Race

When a car has been accepted for racing it cannot be changed. To do so should require another inspection to verify that the car still meets the inspection criteria. For that reason, the car may not be allowed to be altered after it has been accepted and before or during the actual race.

CHEATING

So what's cheating? Well here are typical examples that most consider outright cheating:

1. Adding weight to a car after it has passed the official weigh-in. For example, lead or zinc attachments.
2. Interfering with the travel of a rolling car.
3. Installing a bearing hidden in the plastic wheel.

4. Switching cars during the heats.
5. Added propulsion like motors, jets, rubber bands etc.
6. A longer than normal (7 inch) car. Everyone assumes that all cars are no more than 7 inches out of the box. (A longer car would provide added tracking stability).
7. Raising one wheel slightly so that only three of the four wheels make contact with the ground (this would provide reduced rolling resistance).
8. Hubcaps - using a round paper sticker over the outside of the wheel to store extra graphite or other lubrication.
9. Adding more lubrication to the car's wheels during the race.
10. The use of reduced diameter wheels, lathe-turned wheels or other radical modifications to the standard wheel.
11. The use of modified axles.
12. Metal car frames, axle tubes and wheel suspension.
13. Using other-than-supplied, non-official Pinewood Derby parts. (Some folks use third-party wheels, axles and bodies).
14. Lubrication - using anything other than a dry lubricant. Tri-Flow, WD40 or other oil based lubricants are not allowed. Graphite tends to be the best for faster wheels.

Miscellaneous

If there is anything about your planned design which is not clearly covered by the rules please do not hesitate to contact any of the event co-chairs. Better to know ahead of time about any potential issue than to find out on turn-in day that your boy won't be able to race his car.

As a reminder the car **MUST** be turned in on weigh-in day. The cars will be kept together in a secure transport box until race day. Do **NOT** put your name on the car. The Lions Club will be judging the cars on weigh-in day for the various Design awards and we don't want them to know whose car is whose.

Schedule of Events:

Now thru Jan. 20, 2019: Design, Build, Paint/Decorate Car (there may possibly be a workshop for anyone desiring a little help/guidance - stay tuned for details).

Sunday January 20 - 12 Noon-4pm: Come to Seaman's Lodge to have your car inspected and weighed. The track will be set up for you to do test runs. All cars must be turned in by 4pm Sunday.

Sunday January 20 - 4pm Sharp: Lions Club will be judging all cars on design and appearance. You do not need to be present - winners are announced at the Race event on Wednesday. **NOTE: If you will be out of town that day please make arrangements to have your car weighed and inspected before Sunday January 21.**

Wednesday January 23: RACE DAY 6pm (Forest Charter School Multipurpose Room).

PLEASE CALL WITH ANY QUESTIONS.

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