

2nd Annual Eno River District Pinewood Derby

2022-2023 program year

Pack Leaders please distribute these District Rules to your packs.

Date: Saturday 25 Feb, 2023

Time: 8:00-9:00 Unit leaders check-in cars

9:30 racing begins

Location: St Thomas More, Lower School

[920 Carmichael St, Chapel Hill, NC 27514](#)

Virtual broadcast link: To be shared near the event

Contact: Jere Julian

[Eno River District calendar](#)

Derby

Construction

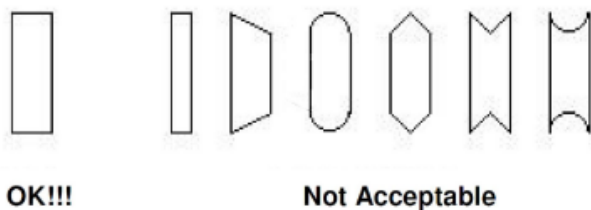
1. The 2023 District Pinewood Derby will have the following categories:
 - a. **Lion Speed** - Fastest 1 Lion
 - b. **Overall Speed** – Fastest 3 cars
 - c. **Beauty** - 3 cars
 - d. **Originality** - 3 cars
 - e. **Scouts' Choice** – 1 favorite car voted by Scouts

Packs may present entrants to any or all of the above categories.

2. Pinewood Derby cars are intended to be designed and built by Scouts with supervision and assistance of their Akela. Scouts BSA guidance for age-appropriate use of tools is published in the Guide to Safe Scouting.
3. Each car must be built by a Cub Scout starting with the materials in an Official BSA Pinewood Derby Car Kit. This includes the pine wood block, axles and wheels. Separately purchased specially prepared components such as contoured pinewood blocks or machined wheels are specifically prohibited. Parts and portions of cars built in prior years may not be reused in the construction of the car.
4. Official BSA wheels are required for all cars.
5. The overall length of the car shall not exceed 7 inches (17.8 cm).

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6. The overall width of the car shall not exceed $2\frac{3}{4}$ inches (7.0 cm) (Stock car kits width.)
7. The overall height of a speed car shall not exceed $4\frac{1}{2}$ inches (11.4 cm) in order to not damage the timing gates. Non-speed cars may not exceed 6 inches.
8. The weight of the car shall not exceed 141.75 grams (Approx. 5 ounces).
The recommended method of weighing cars is with a digital postal scale set to measure in grams (less than or equal to 141.75 grams).
9. The distance between the front and rear wheels shall not be altered. The axle cutouts provided in the blocks must be used. These may be re-drilled, but new holes are prohibited. All 4 wheels must turn when rolled on a flat surface. "Lifting" a wheel is prohibited.
10. No loose materials or sliding pieces are permitted on or in the car.
11. The car may be hollowed out and built up to the maximum weight by addition of weights, provided the car continues to meet the other construction requirements.
12. The car shall not ride on any type of springs.
13. The car shall be freewheeling with no starting or propulsion devices, e.g. springs, fans, bottle rockets, balloons or CO2 cartridges. Movable weights are prohibited, as is the use of a liquid weight such as water or mercury.
14. Purely decorative items such as steering wheels, drivers, decals and paint are permissible, as long as they meet other listed requirements.
15. BSA Pinewood Derby kit axles may be polished smooth as long as the shape/profile remains unchanged.
16. Only dry lubricants (e.g. graphite) may be used on axles.
17. Wheel bearings, washers and bushings are all prohibited.
18. Weights may not be added to the wheels.
19. The inner dimensions of the wheels may not be thinned or altered.
20. Rough edges and excess mold flash on the wheels may be sanded, so long as the wheels retain 97% (1.155 inches - 29.24 millimeters) of their original diameter, and 100% of the running surface must be 90 degrees to the face of the wheel. Alteration of tread contours, e.g. rounding, is prohibited. See diagram. The majority of all 4 wheels must be touching the track surface. Slight angles of each wheel is acceptable due to difficulty of absolute 100% contact and is up to the discretion of the check-in official.



21. Specific lubrication of the tread is prohibited.
22. Pre-lubricating the track is prohibited.
23. Speed cars: Cars with pointed or contoured fronts must be able to rest on their own against the starting gate pin without moving ahead of the starting line or other cars as this affects timing systems.
24. Non-speed cars are exempt from requirements for all 4 wheels to touch the surface and roll at the same time.

Eligibility

25. Packs are encouraged to hold an Open/Adults/Siblings race for family members to build cars and participate in the Pinewood Derby experience. However, there will not be a separate Open Category at the District Derby.
26. Registered Cub Scouts – Lions, Tigers, Wolves, Bears, Webelos, and Arrow of Lights – will be eligible to participate in the District Pinewood Derby, as will any Scout who won in any category at their Pack Derby as an Arrow of Light but who has since crossed over to Scouts BSA.
27. A Scout may only enter one car, and one category in the Derby. Scout's choice is not an official category of entry and is a result of consensus on race days. Should a car receive the most votes in more than one category, the scout must decide their winning category.

District Derby

28. To enter the District Derby, a Scout's car must have placed in a Pack's Derby held since September 1 of the year prior to the district race. No car built prior to September 1 of that year may be entered.
29. Each car will be entered in the category that it won in the Pack Derby.
Cars may only be entered in a single category at the District race. If a car wins in multiple categories at District, the Scout must choose in which category they want to accept the award.
30. Cars must not be altered in appearance or otherwise modified between the Pack Derby and the District Derby
 - a. Winning pack cars impounded by a Cubmaster (or representative) and transported to the District Derby may go through a streamlined registration process. Example storage boxes designed to protect cars until the District Derby are available upon request.
 - b. Alternatively, Scouts will be permitted to present their own car for registration and inspection with certification from their Pack indicating eligible category. A list of Scout names and categories from the Cubmaster will be required in advance.

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31. If a car owner is unable to attend the district Derby, that Scout may designate another Scout (not adult) to represent the winning car. The Scout representing the car at the Derby (owner or designee) will be known as the "car's driver."
32. At the District Derby, each Cub Scout entrant should be in the official Scout field uniform.
33. Each car is subject to inspection for compliance to the construction rules prior to being registered. These rules apply to all categories. Once it passes inspection, the car will then be labeled with its entry number.
34. Strict review of the wheels for the fastest car category will be undertaken by the pre-race judges.
 - a. Light sanding as described in rules above is the only wheel refinement allowed.
 - b. All four wheels must run on the track at the same time.
 - c. All four wheels must rest flat on the track.
35. Rail running and/or cars with elevated wheels (1 wheel off and 3 wheels on) will be disqualified from the fastest car category unless corrected prior to racing.
36. After passing inspection, cars will be placed on designated tables and shall only be handled by the car driver and race officials. After passing inspection, cars may not be altered in any way.
NOTE: NO lubrication may be added once the car has been checked in.
37. Cars failing to pass inspection will have until the start of the race to be modified in order to meet requirements. Alterations may only be performed in the race area by the car driver. A race official will be available to supervise; other adults are not allowed in the race area.
38. All cars must be able to run all the way down the track and past the finish line to be entered in any category.
39. The Speed ("Fastest") winners will be determined by a computerized timing system. Every car will run once or twice on each lane, as decided by the pack or district race coordinator. The hosting Pack will choose the race software. The car with the fastest time will be designated the winner.
40. Judging design categories: It is up to Packs how District qualifiers are chosen.
At District:
 - a. Car drivers (Scouts) will have the opportunity to vote for the Scouts Choice, Superheroes and Scout themed categories.
 - b. A panel of independent judges will decide on the Most Beautiful and Most original categories
41. During race time, if a car jumps the track, a re-run may be done at the time of the jump or at the end of race, depending on what's best for the race software. If the car jumps a second time it will have a time of 9.999 sec for run. However, only the fastest time will be used to determine the winner.

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42. If a wheel comes off, repair time is allowed. Only the car driver may make repairs. No adult may touch the car. Adults may provide advice and coaching only.
43. In the event of a tie, all tied cars will race to determine the winner. If there are more cars than there are lanes (e.g. three cars with equal times and a 2-lane track), the cars will race in a single lane against the clock until a winner can be determined. Otherwise the cars will race against each other in each lane and their times tallied as in a regulation race until a winner can be determined.
44. In case of computer, power or track failure preventing accurate timing, winners will be decided by double elimination. Double elimination races will consist of 2 heats of 2 cars each. After the first heat, the cars will swap track positions and rerun. A car must win on both track positions to win the race. A car must lose races against 2 different cars to be eliminated.
45. Scouts should watch the "Up next" board and be prepared to load their car on the track. Any car whose "driver" is not ready may have their car loaded by a race official to maintain the flow of races.
46. The decisions of the judges and the Derby Officials will be FINAL. All decisions will be made in the Spirit of Scouting, fair play, good sportsmanship and FUN!
47. Trophies are awarded in all categories.
48. GOOD LUCK and HAVE FUN!

