

Pack 452 Pinewood Derby Activities and Procedures

1. Inspection

- a. Each car must pass inspection and weigh-in at the derby location before it will be permitted to complete. The Inspection Team shall disqualify those cars that do not conform to the “Specifications and Rules” as shown on the next page. Car owners will be informed of the nature of any violation and will be given the opportunity, within the time available, to modify the car to meet the specifications.

2. The Competition

- a. The race is open to all Cub Scouts who are in good standing with Pack 452, including the siblings of these scouts and their parents.
- b. Cars must have been made for the current Pinewood Derby season. Cars made for a previous Pinewood Derby competition season are not permitted. The season begins in the year the Pinewood Derby is conducted.
- c. Once a car is registered, only the Derby Committee members or their designated assistants will handle the car(s). Participants should be sure they have lubricated the axles and completed any last minute adjustments or repairs before they register the car.
- d. The competition will be double-elimination, with each car running at least twice before being eliminated from competition.
- e. If a car comes off the track or leaves its lane, a “no race” will be declared and the heat will be run again, even if the car has not interfered with another car. If the same car comes off the track during this second “heat” running, it will automatically lose the heat. In the event of a second “no race” call during a three car heat, the two remaining cars will race again to determine the winner.
- f. If a car suffers a mechanical problem during a race, a “no race” will be declared. The owner will be given five minutes to accomplish repairs. At the completion of the repairs, the car will be re-inspected for compliance with the rules and specifications. The heat will then be run again. If repairs cannot be completed in five minutes, that car will automatically lose the heat. If that is the car’s first loss, the owner will then have an additional five minutes to repair the car and place it back in the competition group. If repairs cannot be completed within these additional five minutes, then the car will be automatically disqualified from all competition.
- g. If all cars in a heat do not make it to the finish line, the car closest to the finish line will be declared the winner.
- h. Only race officials and their designated assistants will be permitted in the track area.
- i. There will be three judges at the finish line. If an electronic scoring system is used, and two of the three judges disagree with the results shown on the electronic system, a “no race” will be declared and the heat will be run again.
- j. If no electronic scoring system is used, or if an electronic system fails during competition, two of the three judges at the finish line must agree on the finish order or a “no race” will be declared and the heat will be run again.

3. Disputes

- a. Any participant (or their parent) has the right to appeal to the Pinewood Derby Race Committee for an interpretation of these rules. Decisions of the Pinewood Derby Race Committee Chairperson are final.

Pack 452 Pinewood Derby SPECIFICATIONS AND RULES

Race Car Specifications

1. Length, width and Clearance

- a. Maximum overall width of car (including wheels and axles) shall not exceed $2\frac{3}{4}$ (1.75) inches.
- b. Minimum width between wheels on opposite sides of car shall be $1\frac{3}{4}$ (1.75) inches.
- c. Minimum clearance between lowest point of the car and the track shall be $\frac{3}{8}$ (0.375) inches.

PLEASE NOTE: The track being used has a substantial center rail. Any car with so much as a quarter (coin) taped to the bottom (as weight) will probably get hung up on the center rail before reaching the finish line. WARN your Cubs and check the bottom clearance of their cars to avoid serious disappointment.

- d. The wheelbase (distance between the front and rear axles) must be exactly $4\frac{1}{4}$ (4.25) inches. Wheel location may be moved forward or backward on the car, as long as the distance between the front and rear axles is $4\frac{1}{4}$ (4.25) inches.
- e. Maximum car length shall not exceed 7.0 inches. There is no rule for minimum car length except that cars must satisfy the minimum wheelbase requirement.
- f. Participants should check the measurements of the wood block supplied in the Official Cub Scout Pinewood Derby Car kits, since they are not always made to the correct size.

Commercially precut Pinewood Derby car bodies that are Not Cub Scout issue May Be Used, but the car must meet all requirements in this Specification. **Wheels and axles provided in commercial kits shall not be used! The only wheels and axles that are permitted are those found in the Official Cub Scout Pinewood Derby kit (See Section 3 below).**

2. Weight and Appearance

- a. The weight of the finished car shall not exceed 5.0 ounces (141.75 grams). The readings of the official race scales shall be considered final. The car may be hollowed out and built up to the maximum weight by the addition of wood, metal, plastic, paint, or decals only, provided that such weights are securely built into the body or firmly affixed to it. No loose materials of any kind are permitted in or on the car.
- b. Mercury shall not be used in adding weight to the car.
- c. Details such as steering wheel, driver, spoiler, decals, paint work, and other interior or exterior details are permissible as long as these do not cause the car to exceed the maximum length, width, weight, and clearance specifications.
- d. Cars with WET PAINT OR GLUE will not be accepted at registration and weigh-in.

3. Wheels and Axles

- a. Only the wheels and axles provided with the Official Scout Pinewood Derby Car kit may be used. Axles may be polished. Wheels may be lightly sanded to remove the mold projection on the tread. This light sanding is the only wheel modification allowed. **Beveling, tapering, thin sanding, wafering, lathe turning, or any other modification that changes the basic shape and/or structure of the wheels are strictly prohibited.**

- b. Wheels shall be able to contact the car body directly. The use of bearings, bushing, or any form of spacers between the wheel and the car body are prohibited.
- c. The car must be free-wheeling with no starting devices, springs, or other methods of propulsion.

4. Inspection

- a. Only dry powdered lubricants such as graphite may be used. Regular oils, silicone sprays, or other special lubricants, such as WD-40, may soften the plastic wheels and are therefore prohibited.
- b. Participants will not be allowed to add lubricants to the car once it has passed inspection and has been placed in the care of the race officials.

5. Show Car Requirements

- a. Any car may be entered in the “Show Car” category. “Show Car” entries can be from any age group, including parents of scouts.
- b. “Show Car” entries are not required to meet the “Race Car Specifications” described in paragraphs 1-4 above. However, such “Show Car” entries will not be permitted to race.
- c. “Show Car” prizes will be awarded for the following categories:
 - Best Blue and Gold Car
 - Best American Car
 - Best Israeli Car
 - Coolest Car
 - Funniest Car
 - Most Original Car
 - Most Artistic Car
 - Most Colorful Car