

Ouachita Area Council Pinewood Derby Rules and Regulations

Pinewood Derby Rules and Regulations

- Once cars have been registered, weighed, and certified, they will remain in the hands of race committee until the end of the competition.
- Scouts not involved in the current race and all other spectators must remain behind the tape. Seats will be set up to allow spectators to see the race.
- Each scout is responsible to place his car upon the track and retrieve it at the finish line.
- We run what is called a "Rotation/Double-elimination" race. The cars use the two outside lanes. Each race has two competing cars. Each car will race in each lane (that's two times down the track – once down one lane and then once down the other lane). The car that wins the race twice will be registered as the winner of that race and put in the winner's bracket. In case of a tie, the best two out of three will determine the winner. The car that loses that race will be put in the consolation bracket to compete against other cars that have a loss. In the final heat, the winners of the winner's bracket and the winners of the consolation bracket will compete.
- Results will be recorded at the finish line.
- If a car leaves the track, runs out of its lane, interferes with another car, loses an axle, etc., the heat will be rerun. If the same car gets into trouble on the second run, the contestant is disqualified and automatically loses that race. If, on the second run, another car is interfered with, the heat will be run a third time, but without the disqualified car.
- Cars constructed for previous Pinewood Derbies are not eligible to compete.

Pinewood Derby Car Specifications

- All racers, regardless of division, must comply with the following racing specifications which are excerpted from the official Grand Prix Pinewood Derby Kit Instructions:
- Width: Overall width shall not exceed 2-3/4".
- Length: Overall length shall not exceed 7".
- Height: There are no height restrictions other than the car must fit below the electronic finish lines which vary between 5" to 10"
- Minimum Car Bottom-to-Track Surface: 3/8" - this is a dimension that will allow the car to clear the track's raised lane keeper.
- Minimum Width between Wheels: 1-3/4" - this is a dimension measured between the wheels along the axle centerline, which will allow the car to clear the track's raised lane keeper.
- Weight: Finished car can not weigh more than 5 ounces. The weight shown on the Official Race Scale is final. All car parts and materials must be firmly attached. To increase the car's weight, add wood or metal only.
- Wheels & Axles: Use only Official Scout Grand Prix wheels and axles. **No other wheels and axles are allowed.** You can polish the axles. You may lightly sand the wheels to remove the molding seam on the tread. No other wheel changes are allowed. Washers, hubcaps and bushings are prohibited.
- Lubrication: Use dry powdered graphite ONLY. You may not use any other lubricant, especially oils and silicone sprays. No graphite may be applied after car inspection.
- Springing: The car shall not ride on any type springs.
- Details: Details such as steering wheel, driver, decals, painting, or interior detail are permissible as long as these details do not exceed the maximum length, width, and height specifications.
- Attachments: The car must be freewheeling with no starting devices.
- Inspection: Each Car must pass inspection by the Committee before it may compete. Inspection will take place during registration on race day. The Inspectors have the right to disqualify those cars which do not meet specifications by race time.

Guidelines for Pinewood Derby Car Assembly

The following guidelines are to be followed when building a Pinewood Derby racer. These guidelines are established to minimize controversy over the degree of parental involvement in the construction of the car. Remember that, ideally, the building of a Pinewood Derby car is a father/son endeavor. If a father is unable to assist the Scout in building the racer, help from a mother, older brother/sister, uncle, grandparent, or other adult is encouraged.

- Car Design - The Scout should select and produce a sketch of the car design. Ensure that the width of the car is 1-3/4" or greater at the points where the wheels are attached. If the width is less than 1-3/4" at these points the car will not fit on the track.
- Shaping the Car Body - In most cases, the adult is encouraged to rough cut the car body. This is particularly true if power tools are used.
- If hand tools are used, let the Scout assist in cutting the shape. Use this opportunity to instruct the Scout on the proper use, care, and storage of the tools that you are using.
- If power tools are used, ensure that all safety devices associated with the tools are employed. Use this opportunity to instruct the Scout on the safe operation of power tools. Make sure that safety glass/goggles are worn by anyone around a power tool in operation.
- Check the grooves to ensure that each is at a perfect 90-degree angle to the car body. A car with untrue axles tends to steer to one side or the other, causing it to rub up against the side of the lane strip, slowing it down.
- Finishing the Car Body - ALL sanding, painting, decal application, or other detailing of the car body should be done primarily by the Scout. Once the shape of the car body is established it is the Scout's responsibility to finish the car. Guidance by the adult is

encouraged, but actual performance of the work falls to the Scout. Once again, use this opportunity to instruct the Scout on sanding technique, painting decals, etc., but don't forget to let the Scout do the work!!!

- Wheels and Axles - Adults should take the lead in preparing the wheels and axles. All of the steps that follow are critical if the car is to be a fast racer!
- As noted in the instructions that come with the racer, remove the wheel seams using a drill (electric or hand), a six penny finishing nail, and a piece of fine sandpaper glued to a flat block. Let the Scout assist by having him hold the sandpaper (all ages) or the drill (recommended for Webelos only).
- Insert the axles (without the wheels) into the car body to within 1/4" of the head of the axle. Make sure that the axles are inserted perpendicular to the car body. Gently remove the axles with a pair of pliers by slowly twisting and pulling on each axle.
- Pre-lubricate (a) the inside of each wheel and (b) the part of the axle near the head where the wheel will rotate with dry powdered graphite. Do not use regular oil or silicone spray. These lubricants can soften the plastic wheels.
- Slide the wheels over the axles and gently tap the axles into the car body. A gap of 1/32" (How do you measure that?!) is recommended between the wheel and the car body. In short, a slight gap should exist between the wheels and the body. Each wheel should turn freely.

Pack 82 Pinewood Derby Inspection Rules

1. The purpose of car inspection is to assure a fair race for all.
2. **Official BSA Pinewood Derby Car Kits are to be used. Pre-cut car kits such as those available at craft stores are not allowed.**
3. All cars must pass inspection to qualify for the race.
 - a. The car must have been made during the current scouting year.
 - b. The overall width of the car shall not exceed 2 ¾ inches.
 - c. The overall length of the car shall not exceed 7 inches.
 - d. The weight of the car shall not exceed 5.0 ounces.
 - e. The distance between wheels on the same axis shall be no less than 1 ¾ inches so as to remain on the track.
 - f. The ground clearance under the car shall be great than 3/8 inches so as to freely move on the track.
 - g. Any details added must be within length, width, ground clearance, and weight limits.
 - h. Only axles and wheels in the provided kit or an official BSA pinewood derby car kit shall be used.
 - i. NO one piece axles.
 - ii. Wheels can be sanded to remove surface imperfections, but the treads must be left flat.
 - iii. Axles can be sanded to remove surface imperfections (burrs).
 - i. **NO liquid or spray lubricants are allowed.** Only dry powdered lubricants (graphite) are permitted.
 - j. Wheel bearings, washers, and bushings are prohibited.
 - k. The car shall not ride on any kind or type of springs.
 - l. The car must be freewheeling, with no starting devices.
 - m. No loose materials of any kind (such as lead shot or washers) are allowed in or on the car.
4. Inspections and check in will start 1 hour before the official start time.
 - a. Adjustments to cars can be made during this time. **HOWEVER**, once the car is checked in **NO** adjustments may be made.