



# ARBUCKLE AREA COUNCIL - Pinewood Derby Rules

Adopted January 12, 2025

These are the official Arbuckle Area Council Pinewood Derby rules. These rules apply to all Council, District and Unit pinewood derbies in the Arbuckle Area Council held after January 1, 2025, until changed. Before starting construction on a car please familiarize yourself with these rules. It is up to each Cubmaster to see that current

copies of the rules are available to members of their packs - the most current Pinewood Derby rules are posted on the Arbuckle Area Council website at [www.arbucklebsa.org](http://www.arbucklebsa.org). **NOT KNOWING THE RULES IS NOT AN EXCUSE FOR BREAKING THE RULES.**

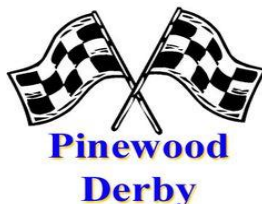
**PINEWOOD DERBY PURPOSE** - The purpose of the Pinewood Derby is to help the Cub Scout build a team relationship with their parent or helper; experience a sense of accomplishment and the excitement of competition; learn about tools and their use; learn about safety and eye protection, learn good sportsmanship, and, most importantly of all, to have fun. With the help of adults, Cub Scouts use Pinewood Derby Kits to design, shape, assemble and decorate model cars. The cars are gravity powered and run down a special track.

**A WORD OF CAUTION** - With all the pinewood derby information, tips, tools, finished cars guaranteed to win and more available on the internet, one can get carried away and end up spending a lot of time and money building a car for their scout. This deprives them of the benefits of this event. This happens NOT so much because one wants to win at any cost, but because researching and building the fastest car possible is fun. For this reason (letting yourself get carried away) involve your scout in the research and design and building of the car. Tell them what is being done and why and let them help all they can. Help them learn how the tools work. One will be surprised at how much more they understand and can do each time a new car is built. A year makes a lot of difference in your scout's maturity, knowledge, skills, learning ability and desire. Building those traits is the purpose of this event!

## SECTION I – GENERAL INFORMATION

### A. Ground Rules

1. Parents should visit with their scouts before and during the Pinewood Derby and prepare them to be both good winners and good losers as the case may be. Stress that no one is a loser if they learned from building a car and made THE CHOICE to have fun at the derby.
2. Scout-like conduct is expected from participants and those in attendance at any derby in the Arbuckle Area Council. Poor conduct could result in penalties to the guilty party ranging from a warning to being disqualified to being removed from the grounds. Penalties are at the discretion of the race committee.
3. Pinewood derbies are under the direction of a Chairperson and a race committee consisting of at least 2 people. The Chairperson and committee should be determined and announced before the race. Other desired race officials such as, but not limited to, registrars, track marshals, judges, bracket keepers and inspectors can be recruited and given instructions by the chairperson and race committee as needed. Each pack represented in a district or council derby should designate an adult as the pack leader for that derby.
4. Any participant (including the parent of the participant), accompanied by their pack leader, has the right of appeal to the Event Chairman for an interpretation of these rules. The Race Committee, by majority vote, will be the final judge of these rules. The Event Chairperson shall only vote in case the vote of the Race Committee results in a tie vote. The decision of the committee is final.



### **B. Car Construction**

1. Cars must be constructed from the official Boy Scouts of America Pinewood Derby Kit sold at the Arbuckle Area Council Office, other scout shops and at [www.scoutshop.org](http://www.scoutshop.org). All safety rules should be followed and appropriate eye protection should be worn.
2. There is a great deal of information on the internet about building cars. Some suggestions do not follow these rules.
3. Car Templates (patterns for cutting blocks) can be found at <https://templatelab.com/pinewood-derby/> and other places.
4. Details such as steering wheel, driver, spoiler, decals, and painting are allowed as long as these details do not make the car exceed the maximum length, width and/or weight specifications indicated below.
5. The same car used at the pack race must also be used at the district and council races should the car qualify. Modifications may **not** be made to the car after the pack race and after the district race.
6. Cars must have been made for this current year's derbies. Cars made and raced in previous years are not permitted to race again.
7. Any accessories, lubricants, tools and car parts sold by the BSA on [www.scoutshop.org](http://www.scoutshop.org) or at council scout shops may be used in the building of the cars.
8. Cars should be constructed so that, when racing, at least three of the four wheels touch the track. A car with one of the four wheels raised off the track is legal.
9. Each car must pass an inspection by designated race officials at weigh in that ensures the car is not outside the specifications. Should a car not pass the inspection the owner will be informed of the reason for the failure and will be given the opportunity to make adjustments within the designated official weigh-in period.

## **SECTION II – CAR SPECIFICATIONS**

### **A. Length, Width and Clearance**

1. Maximum Overall width (including wheels and axles) is 2 ¾"; maximum length is 7" and maximum height is 2 ¾".
2. Minimum width between wheels shall be 1 ¾" (the original width of the block) or wheels will not fit over the guide strips on the track.
3. The bottom clearance between the car (including weights and any other attachments) and the track (not the guide strip) should be at least ¾" so that the car will not contact the track's guide strip.
4. No part of the car can extend beyond the starting pin when placed on the track.
5. The wheelbase (distance between the front and rear axles) may not be changed from the kit body distance of 4 3/8."

### **B. Weight and Appearance**

1. All cars should be weighed on the scale designated as the official race scale and must not exceed 5 ounces in weight. Weight in a solid form can be added to the car. Liquids such as mercury or water cannot be used to add weight. Any weight or decoration added to the car must be securely attached.
2. All decorations, painting, slogans, decals, and the like should be scout appropriate.
3. All paint and glue on the car must be dry at check-in.



### ***C. Wheels and Axles***

1. Only official BSA wheels and axles – those that came with the kit or bought on Scoutshop – can be used in building the car.
2. Axles may not be altered; they may be polished and lubricated and axle marks may be removed.
3. All axles must be affixed in the precut axle slots in the BSA Pinewood Derby Block. However, these slots can be modified using the tools sold by the BSA (see I.B.7), but the wheelbase may not be changed (see II.A.5).
4. Wheel seams and imperfections may be removed and wheels can be trued so that they are round. No other wheel modifications are allowed and none of the design/writing on the outside of the wheels, including the “tic” marks, can be removed. Inside and outside hubs can be polished but should not be modified other than coning of the inside hub. Reducing the tread width; trimming the inside edge of a wheel; or reducing the weight of a wheel by removing part of the surface of the underside of the tread surface are all prohibited.
5. Wheel bearings, washers or bushings are prohibited, and the car must not ride on any type of springs.
6. The car must be freewheeling, with no starting devices or other means of propulsion.



## **SECTION III – DIVISIONS, RACE FORMAT, RACE PROCEDURES**

### ***A. Divisions in Pack, District and Council Derbies***

1. All Pack Derbies are open to registered members of the Pack. Packs may determine categories as they wish. However, only the top 3 finishing Lion, Tiger, Wolf, Bear, Webelos and AOL (Webelos and AOL race separately) cars as determined by the pack can advance to the district derby.
2. District race divisions will be made up of divisions for those registered as Lion, Tiger, Wolf, Bear, Webelos and Arrow of Light scouts who have advanced from their Pack derbies. The top three finishers in each division will advance to the Council Derby.
3. Council race divisions will be made up of divisions for those registered as Lion, Tiger, Wolf, Bear, Webelos/Arrow of Light scouts who have advanced from their District derbies.
4. In pack, district, and council derbies there may be other divisions such as, but not limited to, “outlaw,” parent, sibling or other divisions. These divisions may have special rules that apply only to this division. Generally, but not always, in the outlaw division the only rules are that the car must weigh no more than 5 ounces and meet the width, length, height and clearance specifications indicated in Section II.
5. Arrow of Light Scouts who cross over after their Pack derby but prior to the District and/or Council race shall continue to be eligible to race in the District and Council race.

### ***B. Race Format***

1. The Derby will be a double elimination tournament based on heats and using double elimination tournament brackets. Each heat will have two racers and the winner of a race is the winner of two heats. (For brackets see <https://bracketpdfs.com/> and other places)
2. After the first heat in a race, the two Pinewood Derby cars will switch lanes.
3. If one Pinewood Derby car wins the first two heats, that Pinewood Derby car wins the race and advances. The losing Pinewood Derby car will go to the elimination bracket. A car losing two races has been eliminated from the Derby.
4. If, after the second heat, each Pinewood Derby car has won one heat, a third heat will determine the winner of the race. Before the third heat the winner of a coin flip will have their choice of lanes. The winner of the second heat should call “heads” or “tails” while the coin is in the air. Should any heat in a race end in a tie, the heat will be ran again with the cars staying in the lanes of the previous run.
5. If a car jumps off the track or interferes with another car, the heat will be run again after the track is checked for a problem with the cars remaining in their same lanes. If the same car jumps off the track a second time, it will automatically lose the heat.

6. If, during a heat, no car reaches the finish line on the track, the car which went the farthest in its lane shall be declared the heat winner.

### ***C. Race Procedures***

1. If a cub scout wishes to enter his car into a derby he must be at the derby and register, get the car inspected, get the car to the starting line and back to the proper place after a race as well as other duties as needed as the car participates in the race. In the event a cub scout cannot be at the derby, another person may do so for him with the approval of the race committee.
2. For each derby a registration period and a derby start time should be established, announced, and adhered to.
3. Each Scout will bring his car to the registration area for registration, tagging for identification and inspection. The Scout should be accompanied by an adult.
4. No car can be adjusted, lubricated, or allowed outside the racing area after it has had its final inspection. After final inspection and acceptance for the competition, the car will be “quarantined.” Once quarantined no one should touch, move or manipulate the car in any manner except for officials or the Cub Scout who owns that Pinewood Derby Car. The Scout may only touch, move or manipulate his car only when his name is called to enter the track area.
5. When his name is called and it is his turn to race the Scout should collect his car and give it to the starter to be positioned on the track. The Scout may ask the starter to let them (the Scout) position the car on the track. Whether to permit the Scout to do so shall subject to the starter’s approval.
6. Once their car is on the track the racers should go to the finish line. Scouts should not run and should not step over the track.
7. After each race the scout should return their car to a starter and either the starter or the scout should position the car for the next race. Scouts should follow the starter’s directions and should ask any questions they have about lanes and who won a race.
8. If a car suffers a mechanical problem including, but not limited to, losing an axle or something falling off the car and a repair can be accomplished within 5 minutes in the race area, then the heat will be run again. If not, the car will automatically lose the race. If the car cannot be repaired in the 5-minute time period but can be repaired before its next race it may continue in the derby.
9. After each race the two racers should shake hands and then return their cars to the designated place.

