

ARBUCKLE AREA COUNCIL - Pinewood Derby Rules

Adopted: April 2010, Last modified Feb. 13, 2018

These are the official Arbuckle Area Council Pinewood Derby rules. These rules shall apply to all Pinewood Derbies within the Arbuckle Area Council at the Council, District and Unit levels. These current rules will take the place of any previous rules, any rules found on derby websites, and any rules found in derby kits. All Cubs Scouts participating in any Pinewood Derby within the Arbuckle Area Council must adhere to these rules or the Cub Scout and their Pinewood Derby car will not be allowed to participate in the event. These Pinewood Derby rules are posted on the Arbuckle Area Council website, www.arbucklebsa.org. Please familiarize yourself with these rules before you build your car. (It is up to each Cub Master to see that those in their unit receive or know where to find these rules).

1. Length, Width and Clearance:

- A. Maximum overall width (including wheels and axles) shall not exceed 2 3/4 inches. Maximum length shall not exceed 7 inches.
- B. Maximum overall height may be no taller than 2 3/4 inches measured at its highest point.
- C. Minimum width between wheels shall be 1 3/4 inches and minimum clearance between the bottom of the car and track shall be 3/8 inches so the car will clear the center guide strip on the track.
- D. The **wheelbase (distance between the front and rear axles) may not be changed from the kit body** distance of 4 1/2 inches (+ or - 1/8 inch). The use of the factory grooves for all axles is mandatory.
- E. The entire car (all parts of the car) must not extend **beyond** the starting pin.
- F. All measurements will be determined to be correct if the car fits in the “Official Box” and the “door closes” and no part of the body is protruding beyond the box’s starting pin. The box shall be approved by the Event Chairman for use in any/all Pinewood Derbies within the Arbuckle Area Council. All axels must be affixed in the precut axel slots of the official Kits!!
- G. Cars must be constructed from an official Boy Scouts of America Pinewood Derby Car Kit. These kits are only sold by the Boy Scouts of America and are available at the AAC Scout Shop at the Council Office, www.scoutstuff.org or other official scout shops.

2. Weight and Appearance:

- A. Weight shall not exceed 5 ounces. The reading of the official race scale will be considered final. The car may be hollowed out and built up to the maximum weight by the addition of wood or metal only, provided it is securely built into the body or firmly affixed (by the use of permanent glue, nails or screws) to it. No loose material of any kind is permitted on or in the car. Weights must be “passive”, i.e., non-moveable, non-magnetic, non-electric and non-sticky.
- B. No items may be secured to the car with any tape, spray adhesive, string...etc.
- C. Due to the potential health hazard, NO mercury shall be used for adding weight.
- D. Details such as steering wheel, driver, spoiler, decals and painting are allowed as long as these details do not exceed the maximum length, width, height and weight specifications. Cars with wet paint shall not be accepted. Weights may not be added to the wheels.
- E. The official scale shall be approved by the Event Chairman for use in any/all pinewood derbies within the jurisdiction or the Arbuckle Area Council.

3. Wheels and Axles:

- A. **Only official BSA wheels** (Black or *Colored*) **and axles may be used**. Axles may be polished. Axle mold marks may be removed. Wheels may be lightly sanded to remove the mold projection on the tread surface (if present), this is the only allowed modification to the tread surface that is allowed. No other wheel modification (i.e. - beveling, tapering, thin sanding, wafering and/or lathe turning of) will be allowed. Tread design on wheel (sidewall “tic marks”) must not be removed. ***Colored BSA wheels are offered at www.scoutstuff.org or your local Scout Store and are legal for all races.***
- B. Wheel bearing, washers or bushings are prohibited. The car shall not ride on any type of springs. No weight may be added to the wheels.
- C. The car must be freewheeling with no starting devise or other propulsion.
- D. Wheels may not be concave, convex, nor have any ridges or groves.
- E. **At a minimum, 3 of the 4 wheels must touch** when placed in the “Official Box” and starting gate on the track.
- F. **All axles must be affixed in the precut axle slots in the BSA Pinewood Derby Block.** You may have “Pilot Holes” in the original axle slots. **ALL “Pilot Holes” MUST BE INSIDE THE WHEEL SLOTS. YOU CAN NOT MODIFY THE DISTANCE OF THE AXLE SLOTS. MOVING THE WHEEL SLOTS WILL RESULT IN AUTOMATIC DISQUALIFICATION OF CAR.**
- G. Reduction of the mass from the inside of the wheel (known as thinning or the creation of a “light” or “ultra light” wheel) is PROHIBITED. The following wheel tread thicknesses are provided: **Old style (mold projection on flat part of tread)**. 076 inches (+/- .003 inch). **New Style (3 circular mold marks on inside of wheel)** .063 inches (+/- .003 inches) we may use Digital Calipers if it appears that a wheel (or wheels) have been “thinned” to test these measurements.

4. Ground Rules:

A. District Pinewood Derby Race:

1. The Chickasaw Pinewood Derby race is open to a Cub Scout Pinewood Derby car that placed 1st, 2nd, 3rd or 4th place for their Rank in their respective Cub Scout Pack. The Chickasaw District includes Cub Scout Packs in Carter, Johnston, Love & Marshall counties of Oklahoma.
2. The Harry Miller Pinewood Derby race is open to a Cub Scout Pinewood Derby car that placed 1st, 2nd, 3rd or 4th place for their Rank in their respective Cub Scout Pack. The Harry Miller District includes Cub Scout Packs in Pontotoc, Coal and Atoka counties of Oklahoma.
3. The Washita Pinewood Derby race is open to a Cub Scout Pinewood Derby car that placed 1st, 2nd, 3rd or 4th place for their Rank in their respective Cub Scout Pack. The Washita District includes Cub Scout Packs in Garvin & Murray counties.

B. Ranks

1. Lions (once the Arbuckle Area Council starts the kindergarten program) will race together in the same rank
2. Tigers Scouts will race within their own Rank.
3. Wolf Scouts will race within their own Rank.
4. Bear Scouts will race within their own Rank.
5. Webelos Scouts will race within their own Rank
6. Arrow of Light Scouts will race within their own Rank.
7. The division of Ranks will be the same for the Arbuckle Area Council Pinewood Derby race, Chickasaw District Pinewood Derby race, Harry Miller Pinewood Derby race & Washita Pinewood Derby race. Cub Scout Packs may choose to have the Lion, Tiger, Webelos and/or Arrow of Light Scouts race within their own Ranks. Units must then determine the four fastest Pinewood Derby Cars for Lion & Tiger Scouts and Webelos & Arrow of Light Scouts to advance to the District Pinewood Derby race.

C. The Arbuckle Area Council race is open to a Cub Scout Pinewood Derby car that placed 1st, 2nd, 3rd or 4th place for their Rank in their respective District Pinewood Derby Race.

D. Cars must have been made for this current year's race. *Cars made in previous years are not permitted to race again.*

5. Race Format:

A. Actual Race Format

1. Each Pinewood Derby car will race a minimum of two heats (Double Elimination Format).
2. The winner of each heat will consist of a Pinewood Derby car winning two races.
3. After the first race in a heat, the two Pinewood Derby cars will switch lanes.
4. If one Pinewood Derby car wins both races, that Pinewood Derby car wins the heat and advances. The losing Pinewood Derby car will go to the elimination bracket.
5. If after the second race and each Pinewood Derby car has won one race (a tie), then a third race will determine the winner of the heat. **To determine the lane positions of the third race, the track official shall do a coin toss.** The winner of the second race that caused the tie will call "heads" or "tails" while the coin is in the air. The winner of the coin toss shall select his lane to race the next heat. A tie is NOT when both cars cross the finish line at the exact same time and subsequently triggers both lane lights to light up. In that case the heat will be re-run with both cars in the exact same lane as the previous run.
6. After each heat, the driver will return his car to the table.
7. Once a Pinewood Derby car has lost two heats, then that Pinewood Derby car has been eliminated from the Pinewood Derby race.

B. The Cub Scout (or track official) will place his car on the track at the starting line. **Three of the 4 wheels MUST touch the track (see 3E).** The scout or the track official may position the car on the track.

C. If a car jumps off the track or interferes with another car, the race will be run again after the track is checked for a problem. If the same car jumps off the track a second time, it will automatically lose the heat.

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

E. The Cub Scout must be present to race his car for each heat (race) the Cub Scout's car has qualified to race in. **NO ONE ELSE IS ELIGIBLE to race a Cub Scouts car.**

F. If a car suffers a mechanical problem, loses an axle, breaks a wheel, etc. and a repair can be accomplished within 5 minutes in the race area, then the race will be run again. If not, the car will automatically lose the heat.

G. There will be two judges. Both judges must agree on the winner of the race or it will be run again.

H. At no time will there be any modifications to the cars (like lubing, etc.) after they have been inspected with the exception of paragraph "5F" above. Only the Cub Scout or the track official may touch the Cub Scouts Pinewood Derby car during the Unit, District or Council Derby races. A parent may assist with a mechanical issue, see "5F", but only for that 5-minute period.

I. Only track officials and Cub Scouts racing will be permitted into the registration and track area.

No other adults or boys are allowed within the track area or to handle any Scout's car. The rule will be strictly enforced by IMMEDIATE DISQUALIFICATION or LOSING OF THE CURRENT HEAT (the Event Chairman will choose).

6. Inspection and Disputes:

A. An Inspection Team Official(s) will be present at weigh in and inspection.

B. Each car must pass a "**STRICT**" inspection by the Official Inspection Team before it may compete.

C. Each unit is responsible to make sure all Pinewood Derby cars pass inspection at the Unit Pinewood Derby before the car is inspected at the District and Council Pinewood Derby races.

D. After the cars have been officially inspected at the Pack level race, **NO FURTHER MODIFICATION MAY BE PERFORMED ON THE CAR for the District & Council Derby races! ONLY lubrication of the tires is allowed, before any Pinewood Derby inspection.**

E. The Inspection Team (at the Unit, District & Council races) has the right to disqualify those cars, which do not meet these rules. Car owners will be informed of the violation and given an opportunity to modify the car to meet these rules. **ALL rules in Paragraphs 1, 2, 3, 4 & 5 will be STRICTLY ADHERED TO.** All Measurements will be determined to be correct if the car fits in the "Official Box" and the door closes.

F. Each Scout will bring his car to the registration table for inspection and registration. The Scout may be accompanied by his parent.

G. Only the Cub Scout may enter his Pinewood Derby car for that Derby race.

H. The car will be tagged using the current tagging/tracking system in place.

I. No car will be allowed outside the racing area after registration. **After the car has been inspected and is accepted for the competition, the car will be "quarantined". No one may touch, move or manipulate the car in any manner except for the Cub Scout who owns that Pinewood Derby Car or track official and only when his name is called to enter the track area.**

J. Lubrication:

1. Only dry powered lubricants, such as graphite, may be used.

2. Cars may be lubricated before inspection. **NO further lubrication will be permitted during the Pinewood Derby race.**

K. Any participant (including the parent of the participant) has the right of appeal to the Event Chairman & Race Committee for an interpretation of these rules. The Event Chairman & Race Committee, by majority vote, will be the final judge of these rules. In case of a tie vote, the decision of the Event Chairman will be final.

L. The Event Chairman, Race Committee and track officials must be announced at least one day prior to the Derby.

M. Ungentlemanly or un-sportsmanlike conduct by any Cub Scout, participant, parent or member of the audience will be grounds for Disqualification and/or removal from the Pinewood Derby Race. A Scout is HELPFUL, FRIENDLY, COURTOUS, KIND & CHEERFUL!!! Parents, Scout Leaders and Race officials should encourage (or have a race rule) Scouts to shake hands after ever race show sportsmanship to each other. (An announcement before the race should happen to make all aware of the expectations)

N. IF a deadline for registering the cars is provided, it will be strictly adhered to. No cars will be registered after the deadline. Please leave with ample transportation time to meet this deadline.

O. The Event Chairman, Race Committee, Inspection Team & track officials will be announced before the beginning of the District & Council Pinewood Derby races.

These rules have been created so that no one Cub Scout can gain a technical advantage over another.