



Mo-Kan District

Pinewood Derby Rules

The purpose of the Pinewood Derby is to provide an opportunity to have fun, teach good sportsmanship, follow rules, learn woodworking techniques, and do a creative project with a parent or other adult mentor. It is not intended to build the fastest race car on the planet. Please keep this in mind when interpreting the rules. The derby is held in a public place, and we will be representing the Cub Scout program

of the Boy Scouts of America. Each scout will have done their best at their rank in the Pack, and will now have the opportunity to measure their best against the best from other Packs at their rank.

GROUND RULES

- Each Packs are encouraged to send all of their racers for each division: Lion, Tiger, Wolf, Bear, Webelos, Arrow of Light (they MUST be registered Cub Scouts at the time of their Pack's race and the District race)
- Racers participating in the Derby are encouraged to wear their full scout field uniform (class A)
- Cars must have been made for this school year's Pack-level race, using Cub Scout Derby Kit #17006, BSA's "Official Grand Prix Pinewood Derby Kit"
- Racers must use the same car (unaltered, aside from damage repair) raced in this year's Pack derby (all instructions and rules included in the kit must be followed any interpretation of the rules that gives a mechanical advantage is not allowed)
- Only one car may be entered by any scout in the Derby
- Cars will only be registered by the SCOUT to whom they belong (Parents and adults are required to stay behind the appropriate line, this is the scouts' race, no car will be registered by anyone other than the Cub Scout)
- Once cars have been registered, weighed, measured, and certified, they will remain in the possession of the Order of the Arrow Race Committee until the end of the competition
- Numbers will be assigned and affixed to the car at registration
- No one except officials will be allowed in areas that are designated as "restricted," i.e. beyond the registration area and into the area immediately surrounding the track
Unsportsmanlike conduct by any participant or member of the audience will be grounds for expulsion from the competition and/or race area. Please keep in mind this is the Cub Scout's race not the adults.

LENGTH, WIDTH & CLEARANCE

- Maximum overall width (including wheels and axles) shall not exceed 2-3/4 in.
- Overall length (measured from the furthest point forward to the furthest point rearward) shall not exceed 7 in. (no portion of the car can extend beyond the starting gate post. The starting gate post is located in the center of the track and the furthest point on the nose of the car must touch it to run)
- Minimum width between wheels shall be 1-3/4" so car will clear the center guide strip
- Minimum clearance between car and track shall be 3/8" so the car can clear the center guide strip
- Maximum height is 2 -3/4" to clear the timer tunnel
- Wheelbase (distance between center of the front and rear axles) must measure between 4 3/8 in. and 4 5/8 in.
- Underside of the front of the car may not be undercut so as to allow the cars nose to hang out over the top of the starting gate (If the nose protrudes over the starting gate and the official starter is not able to adjust for a fair start, the car will not be allowed to race)

WHEELS AND AXLES

- Only wheels and axles from the official Grand Prix Pinewood Derby kit may be used, with the exception of official BSA colored wheels available at the BSA Scout Shop
- Axles may be lightly filed, sanded and polished; no other axle modification allowed
- No covers, stickers or hubcaps allowed over the wheels or axles. The axel head must be visible

- Wheels may be lightly sanded and polished to remove irregularities. This light sanding and polishing is the only wheel modification allowed. No alteration, narrowing, lathe cutting or reshaping of wheels (inside or outside)
- Cars must have four wheels and wheels must ALL sit flat on the track at all times
- Wheel bearings, washers, or bushings are prohibited (the car shall not ride on any type of springs)
- Cars must be free-wheeling with no starting device or propulsion such as but not limited to adhesives, magnets, rubber bands, motors, jets, etc.
- Glue may be used to adhere the axles to the car body
- Axles must be inserted into the pre-cut grooves, not attached above or below groove

WEIGHT AND APPEARANCE

- Weight shall not exceed 5.0 ounces (141.75 grams)
- Weight shown on the Official Race Scale is FINAL
- Cars may be carved, sculpted, and/or sanded in order to enhance performance and/or appearance
- Additional materials may be added to the car to increase the weight and/or alter weight distribution (it is advisable to have shed-able weights that can be added/removed for check-in adjustments)
- Details such as steering wheel, driver, spoiler, decals, painting and interior details are allowed as long as these details do not exceed the maximum length, width, height, and weight
- No loose materials of any kind are permitted on or inside the car
- Wood putty, or a similar wood-like substance, may be used to repair minor damage
- Cars with wet paint or other wet spray-on materials are not allowed

All cars may be re-weighed/re-inspected at any time for cause, at the sole discretion of the Order of the Arrow Race Committee

LUBRICATION

- Only dry powdered lubricants, such as graphite or white powder BSA Derby Car lubricant, may be used (oils, silicone sprays, or any liquid lubricants are prohibited)
- Once checked in, no further modifications or lubrication will be allowed, except when the wheel is damaged or dislodged during a race and will be done under the supervision and discretion of the Order of the Arrow Race Committee

REPAIRS

- If car does not qualify at registration, alterations may be made by the scout and adult with whom he came (it is highly recommended that scouts bring their own spare parts and tools)
- Repairs are permitted after racing begins at the discretion and supervision of the Order of the Arrow Race Committee, they will be the judge of what repairs are necessary and allowable (if wheels or axles are replaced, only those wheels and axles actually replaced may be lubricated)

RACING PROCESS

- Each rank will race together
- Each heat will be announced
- Cars will be placed carefully upon the track by a member of the Order of the Arrow Race Committee (they will ensure cars are on the track properly, and then will start the race)
- Each car will run down the track two times (racing results will be determined by a computer timing system which calculates the cumulative time of all race heats for each participant)
- If a car jumps off the track, the heat will be run again. If the same car jumps off the track a second time for the same heat, it will be given a Did Not Finish (DNF) time.
- If a car suffers a mechanical problem and a repair can be accomplished within 5 minutes, the heat will be run again
- All race results are determined by the Order of Arrow Race Committee and are FINAL