

PACK 216 PINEWOOD DERBY RULES

Our Pinewood Derby is open to all registered Cub Scouts and Webelos in Pack 216. Cars should be built by the Scout with some adult guidance. Any technical assistance should be fully explained to the Scout so that he can use that knowledge on future projects.

Participation

All Scout cars must have been built by the Cub Scout or Webelos during the current Scouting year.

If time is available, Pack 216 will host an Open Class competition. The Open Class is open to pack leaders, parents, siblings and other persons associated with Pack 216. Open Class cars may race even if built in previous Scouting years.



A Scout car may be raced by another authorized youth (other than the Scout) in the case of illness or schedule conflict on the day of the Pinewood Derby. A member of the Pack Committee or the Cubmaster must approve the substitution before the races begin.

Pack 216 will provide BSA Pinewood Derby kits to all Cub Scouts and Webelos. Adults and siblings must purchase BSA Pinewood Derby kits at their own expense. Pack 216 may provide kits to small number of adults on a case by case basis at the discretion of the Pack Committee.

Check-in

1. Each car shall be inspected and approved by the official inspection team when it is registered. The inspection team shall verify that each car meets the Pack's car specifications.
2. Drivers will be informed of any violations and given an opportunity to modify their car if it fails to pass the inspection. The inspection team, with the consent of the driver and at the team's discretion, may also add weight if the car weighs less than 5 ounces.
3. Cars will be impounded after being registered and passing the inspection. After impound, the cars will only be handled by the driver or the race committee unless repairs are necessary during the race.
4. Repairs shall be limited to replacement of wheels and/or axles that are broken or lost during the race. Repairs shall be made by the driver who registered the car.

Competition

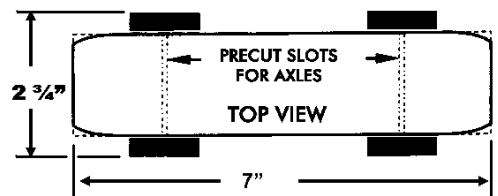
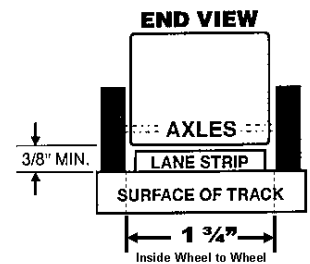
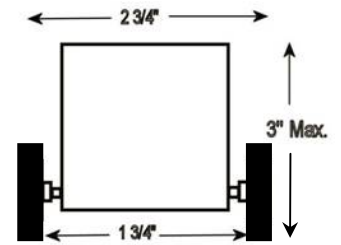
1. Racing will be done on a **lowest cumulative time** basis.
2. Only the driver and racing committee members may handle the cars during the competition.
3. Drivers must be present to race their cars. A driver may be disqualified from a heat if he does not report to the pit area within a reasonable amount of time after his name is called.
4. Each heat will be announced. Drivers will report to the finish line to watch the results of the heat. All other people must remain behind the barriers.
5. A racing committee member will place the cars on the track and start the race.
6. A racing committee member will be at the finish line to determine the winner of each race. (The car whose nose crosses the finish line first is the winner.)
7. Cars may be **disqualified** if the driver or his guests display **unsportsmanlike conduct** on the race site.
8. Don't Touch! Any driver who interferes with the operations of the race, or who operates and/or touches the race starting or timing equipment may be penalized, up to and including disqualification from the race.
9. District Race Qualifiers. The top three finishers from the Pack's race may qualify for the Valley District race (if held.) If any of the top three finishers cannot race, the next driver finishing fastest will substitute. Note that the Valley District Pinewood Derby rules may differ from Pack 216's rules.
10. The **Cubmaster has final authority** in resolving any disagreements or problems that may arise during the competition.

216 PINEWOOD DERBY CAR SPECIFICATIONS

All cars must be inspected and approved by the official inspection team to compete in either competition. The inspection team has the right to disqualify any car that does not meet the following specifications:

1. General specifications

- Width: The overall width of the car shall not exceed $2\frac{3}{4}$ inches. In addition, the car width at the wheel axles must not be modified from what is provided in the official BSA Pinewood Derby kit.
- Length: The overall length of the car shall not exceed 7 inches.
- Weight: The weight of the car shall not exceed 5 ounces. The official race scale that is used at car check-in shall be considered final.
- Wheelbase: The wheelbase must not be modified from what is supplied in the official BSA Pinewood Derby kit.
- Axles: Only BSA kit axles will be used.
- Wheels: Both the lip on the outer edge of the wheel, and the mold line on the inner edge of the wheel must be visible after it is smoothed. Wheels may not be thinned.
- Detailing: Details such as a steering wheel, driver, decals, painting, and interior detail are permissible as long as they do not exceed the maximum length, width, height, or weight specifications. Any additions must be firmly attached to the car.
- The car must be freewheeling. No starting or propulsion devices of any type are allowed.
- No loose materials of any kind (such as lead shot) are allowed in the car.
- Height: In order to clear the starting and timing gates, the overall height of the car shall not exceed 3 inches.
- Clearance: Each car must have $\frac{3}{8}$ " clearance underneath the body so it does not rub on the track or damage the timing sensors.
- Wheel Clearance: In order to fit on the track, a car must have $1\frac{3}{4}$ " clearance between the inside of the front wheels, and the same clearance between the back wheels.
- Numbers: Each car will be assigned a number when the driver receives a kit. Every car shall display the assigned number and no other.



2. Wheels, axles, and suspension

- Axles, wheels, and body wood shall be as provided in the official BSA Pinewood Derby kit. Purchased kits with pre-shaped bodies are not allowed. Purchased axles and/or wheels are not allowed.
- Adjustments to the axle grooves are allowed to true them to the car body and to prevent the wood from splintering when the axles are inserted; however, these adjustments must not change the car's wheelbase.
- Frames and axle supports are prohibited. Axles must mount directly into the car body as described in the instructions provided with each BSA Pinewood Derby kit.
- Wheel covers and other devices that prevent the wheel hub from contacting the car body are prohibited.
- Hub caps and other devices that can be used to store or trap wheel lubricants are prohibited.
- Wheel bearings, washers, and bushings are prohibited.
- The car shall not ride on any type of springs.
- Lubrication. Only dry, powdered lubricants may be used. Liquids, oils, and sprays are prohibited. No lubrication can be added after weigh-in.
- Wheels may only be sanded to remove surface imperfections. No changes to wheel size, diameter, or shape are allowed. Wheel treads must remain flat.

The intent of these specification is that the Scout builds his own car with the kit provided, using the assistance of his adult partner(s). These rules and specifications supersede any previous versions.