



World Pinewood Derby **Official Competition Rules for 2016**

The Greater New York Councils is honored to have you participate in the second Annual World Championship Pinewood Derby. The Pinewood Derby has been a part of the Cub Scout Program since 1953. As its popularity has grown over the last 60 years, the Pinewood Derby has evolved and different Councils have adopted different rules for competition. To ensure that this event is truly representative of all Cub Scouts and allows all qualifying Scouts to compete on an equal racing field, there are two Racing Divisions: Stock Car Series and Pro Stock Series.

Basic Qualification:

Competition in the World Championship Pinewood Derby is open to all 2016 Cub Scout Pinewood Derby Finalists. Finalists are Cub Scouts that finished either 1st, 2nd or 3rd place in their respective rank (Tiger, Wolf, Bear, Webelos I, Webelos II) within their local District or Council Championship Race. The youth must be a registered Cub Scout at some point since January 1st, 2016. Boys that began the calendar year as a Webelos Scout and have since transitioned to a Troop are eligible to compete.

Check-in:

Each car entered in a championship race must pass through inspection by the World Championship Inspection Committee on race day, where it will be evaluated for basic specifications and then placed into one of the two Divisions based on wheel, axle and suspension specifications.

Participants will have the opportunity to make needed adjustments to bring their car into compliance prior to the start of the race should modifications be needed. Modifications must be completed 10 minutes prior to the start of the first race or the car cannot run. Any lubrication must be applied prior to final inspection.

After a car has passed inspection, it will be placed in a designated ready-to-race location. It will remain there until all races have been completed. Only Race Officials will handle the car until the final Award Ceremony has been completed.

If a racer arrives too late to race at their scheduled competition, they will have an opportunity to race their car on a non-competition exhibition track.

Officials have the Right to Disqualify Any Car, which does not meet all of the stated rules and specifications. The Officials Decision is Final. If a Race Official makes a ruling and you wish to appeal it, a majority of Officials will be assembled and based on majority rule the decision will be upheld or overturned.



Basic Car Specifications (for both Stock Car Series and Pro Stock Series):

Dimensions and weights:

- Cars must have been built during the 2016 Pinewood Derby racing season using an Official BSA Pinewood Derby Kit.
- Width, including wheels and axles, must not exceed 2¾ inches (7cm).
- Length shall not exceed 7 inches (17.8cm).
- Weight shall not exceed 5.0 ounces, which is 143.4 grams measured on an official scale. Overweight cars must be reduced to running weight or below before they can be entered. The official race scale shall be considered final.
- Cars must clear the center rail of the track, which is 1 5/8 inches wide by ¼ inch tall along the entire length of the car. Minimum clearance between the bottom of the car and the bottom of the wheels shall be 3/8 of an inch to avoid contact with the tracks center guide strip.
- No part of the car may protrude beyond the starting pin. The front edge of the car must not be more than 1 inch above the wheel lane of the track and be at least 1/2 inch wide at the center of the car.
- Any details added must be within length, width, and weight limits.
- No loose materials shall be allowed on the car, all components of the car must be secured to the car. All weight must be securely fastened or embedded in the car.

Examples of Prohibited Items which CANNOT be used:

- Magnets, springs or suspension systems of any type.
- Starting devices, finish line devices, propellants, or propulsion systems
- Wet paint, or Sticky substances
- Glass or excessively fragile parts
- Electronic or lighting devices (if lights are on the car they must be turned off)
- No Bearings or Solid one-piece rod style axles
- Axles and wheels attached to any device that mechanically alters rotation or spin.



STOCK CAR DIVISION: Wheels, Axles and Suspension:

- Only official BSA Pinewood Derby Kit wheels, either new or old style, and BSA axles may be used. Wheels may be lightly sanded to remove the mold projection. This very light sanding is the ONLY wheel modification allowed. All markings must be intact on inside and outside of wheel. Colored BSA wheels are permitted.
- Wheel modifications such as beveling, tapering, smoothing the inside, coned hubs, ball-reamed axles slots and any other modification is strictly prohibited and will unfortunately fail inspection.
- BSA axles may be polished and lubricated. No lubricating oil or liquid lubricant of any kind may be used. Only powdered graphite is permitted.

PRO STOCK DIVISION: Wheels, Axles and Suspension:

Wheels:

- Wheelbase can be extended. A standard wheelbase is 4 3/8 inches from center of front axle to center of back axle. For the Pro-Stock division, any wheelbase can be used.
- Axle holes may be drilled into the body of the car as long as all other specs are met.
- Outer wheel surface may be sanded, shaved, lathed or polished to remove any imperfections, true roundness, remove mold castings and burrs, but must not be reshaped in any way to minimize tread contact or alter aerodynamics.
 - The fluting (small decorative dots on the edge) must remain visible around the entire circumference.
 - The tread / contact surface must remain flat and parallel to the bore.
 - The width of the tread must not be less than 7.5mm
 - No removing or reducing the letters or spokes or drilling additional holes.
- The following wheel modifications are NOT Allowed:
 - No Rounding of the wheel treads – they must remain flat.
 - No Grooving, H-cutting, V-cutting, Crowing, Tapering or Dishing
 - No Altering the wheel profile
 - No Drilling sidewalls
 - No Filling of any wheel surface with any type of material
- Officials will remove wheel(s) if lettering is not completely visible.
- Coning the hubs, truing the inside edge of the wheel, and removing the outer hub step down is allowed.
- Wheel Bore treatment is allowed including polishing, sanding and / or tapping, however wheel



bores may not be filled and re-drilled

- There must be at least four wheels on the car, however it is not required that all four wheels make contact with the track surface – one wheel may be lifted from the track surface.
 - Each wheel must be mounted on an axle, on the outside of the car, on the side of the car.
 - One wheel can be no more than a 45 Degree from the perpendicular side of the car if desired
 - Each wheel must be attached by an axle
 - Non-Dominant / Lifted wheels must meet wheel specifications

Axles:

- Nail type axles are to be used. You may or may not choose to use those found in the Official Pinewood Derby kit.
- Modifications to the Axles are allowed that include straightening, sanding, polishing, canting, grooving, beveling & tapering of axle head as long as the Diameter of the Axle is not reduced the Diameter may not be less than .084 inches (2.13mm).
- Axles can be mounted by drilling Axle holes or inserted into the slots on car.

Lubrication:

- Graphite is the only lubricant allowed at the World Championship Pinewood Derby for the 2016 race.

Race Operations and Miscellaneous Rules:

- If a car suffers a mechanical problem during a race (i.e loses an axle, breaks a wheel, etc...), the participant and/or a designated adult will have up to five minutes to fix the car. The race will NOT be rerun, nor can ongoing races be delayed.
- If a car leaves the track during a race, the race will be rerun. If the same car leaves the track a second time during, the car will be judged “last place” in that race.
- If a car leaves its lane, Race Officials, at their discretion, may inspect the track and, if a track fault is found which may have caused the initial violation, the Race Officials, at their discretion, may order the race to be rerun after the track is repaired.
- In the event of Starter interference, the race will be re-staged and rerun.
- The track’s electronic timers will record finishing place for all cars in each race. In the event of technical difficulties, the Finish Line Judges will determine the order of finish.
- Only Track Officials will be permitted in the track area.
- Track Officials are responsible for the proper conduct of the races. Good sportsmanship

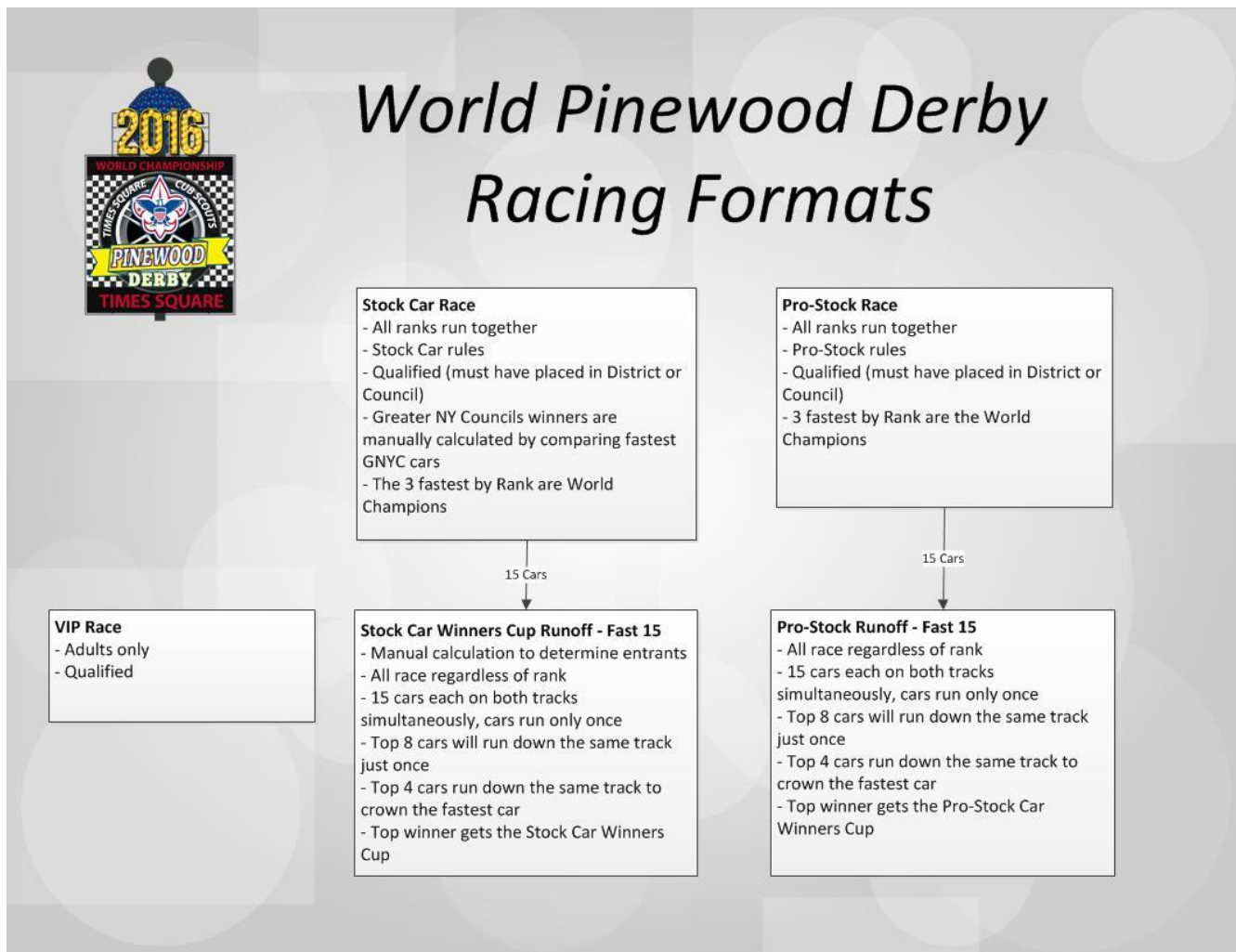


and behavior is expected for all attendees. Race Officials may ask anyone not following this rule to leave.

- Please make note that all decisions of the Official Inspection Committee are final.

Race Methodology:

- Each car will race once in every lane (6 times). Each race is timed with electronic equipment. In the event the equipment fails, the race(s) will be re-run.
- The slowest time will be dropped and the average of the remaining 5 times will determine the results for each racer.
- The 15 Fastest Cars by Rank will be crowned the winners of the Stock Cars Series and the Pro-Stock Car Series.





Trophies:

- GNYC Council Finals:
 - 1st – 3rd Tigers
 - 1st – 3rd Wolves
 - 1st – 3rd Bears
 - 1st – 3rd Webelos I
 - 1st – 3rd Webelos II
- Stock Car Race – World Champion Winners:
 - 1st – 3rd Tigers
 - 1st – 3rd Wolves
 - 1st – 3rd Bears
 - 1st – 3rd Webelos I
 - 1st – 3rd Webelos II
- Pro-Stock Car Race – World Champion Winners:
 - 1st – 3rd Tigers
 - 1st – 3rd Wolves
 - 1st – 3rd Bears
 - 1st – 3rd Webelos I
 - 1st – 3rd Webelos II
- Stock Car Winners Cup Runoff - Fastest 15 from Stock Car Race, regardless of rank
 - Elimination race: 15 cars race simultaneously across two eight lane tracks, the top 8 race again on one track, the top 4 race one last time to get the fastest Car
 - 1st Place Winners Cup – Stock Car Division
- Pro-Stock Car Winners Cup Runoff – Fastest 15 from Pro-Stock Car Race, regardless of rank.
 - Elimination race: 15 cars race simultaneously across two eight lane tracks, the top 8 race again on one track, the top 4 race one last time to get the fastest Car
 - 1st Place Winners Cup – Pro-Stock Car Division
- Additional Awards:
 - Most Patriotic
 - Best Paint Job
 - Best Scout Theme
 - Most Creative
 - Most Realistic