

## Overview of the 2021 Northampton County District (NCD) Pinewood Derby® (PWD) Race Rules

The 2021 NCD PWD Race is scheduled virtually on Sunday, May 23 at the Wind Gap Fire Co. Social Hall. Currently each Pack may send up to 5 Racers with their cars. Due to COVID-19, look for the latest information at [www.minitrails.org](http://www.minitrails.org) & select "Districts".

To *compete* for a speed trophy at the NCD PWD Race your car must comply with the 2021 NCD PWD Race Rules which is the checklist on the other side of this sheet, *The Checklist Rules*. All cars at the NCD Check-In will be inspected using this checklist. Listed below is nearly every violation missed by prior years Racing Teams.

Refer to [scoutshop.org/pinewood-derby](http://scoutshop.org/pinewood-derby) for virtual PWD Champ Camps that were offered by National BSA. To learn more as able, attend or create a PWD workshop or find that experienced Racing Team. But remember to be careful to weed out non-relevant information from the internet or in person.

### **\*\*\* ASK QUESTIONS WELL BEFORE YOUR PACK'S RACE \*\*\***

Reach out to your Pack PWD Chair for clarification of your Pack's rules & the race.

If desired, refer to the *2021 NCD PWD Guide* for clarification of the NCD PWD Race Rules.

For the final answer to questions about the 2021 NCD PWD Race & its Rules, reach out to the NCD PWD Chair, Chris Van Camp at 513-253-8174 (M) or at [MTCNCDPWD@gmail.com](mailto:MTCNCDPWD@gmail.com).

If you are alert to the violations below & follow the Checklist Rules, you *should not* have a problem during the NCD Check-In inspection. However, if the car does not pass, the Racing Team (the Cub Scout & their Akela), MAY be allowed, with approval from the NCD Race Committee, to adjust the car as needed on a case-by-case basis. If the car still cannot pass the inspection & it is safe, it can *participate* in the 2021 NCD PWD Race. However, the car is *not* eligible to win a speed trophy, but it *IS* eligible to win a specialty trophy.

### Specialty Trophy Categories

Best Cub Scout Theme      Most Patriotic      Funniest      Best Not A Car      Most Unique

#### These missed details cause 99% of the violations at Check-In.

- 1) The car must be safe to race. The car cannot interfere with the other cars & cannot have ANY loose or fragile or dangerous parts, etc. An unsafe car, to person or property, cannot even *participate* in the NCD PWD Race.
- 2) The NCD scale is probably more precise than your Pack's scale. So, BE PREPARED to remove a little bit of weight (e.g., by use of putty in a hole) to comply with the maximum weight of 5.00 ounces.
- 3) The ENTIRE car MUST meet all the dimension requirements: heights, lengths, & widths.
- 4) If anything is added to the car's underside it must be no more than 1/8" thick & no more than 1 1/8" wide & centered. Do NOT cover the axle slots. (Try to put weight inside or on top of the back 1/3.)
- 5) The car's "core" MUST be constructed using the components from the Official BSA Pinewood Derby® Car kit box #17006 (2018© &/or 2012©) &/or #17000 (2018© &/or 2009©). The components in these boxes include:
 

The BSA Pinewood Block	The 4 BSA Nails	The 4 BSA Wheels
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  - a) *Alternatives*: only from a BSA Scout Shop, the BSA Wedge & the BSA Tubes containing Wheels & Nails.
  - b) Do NOT use pinewood blocks, nails &/or wheels from ANY other sources. No outsourcing.
  - c) If a component breaks, ONLY go to your Pack PWD Chair &/or a BSA Scout Shop & get another legal Kit or Wedge or Tube of Wheels & Nails. Do NOT go to any other sources, they will NOT pass the inspection.
- 6) The BSA pinewood block's factory cut slots MUST be used by the axles. NO OTHER axle slots permitted.
- 7) The axle tips MUST be visible to inspect. Do NOT cover tips. If an adhesive is used, make it clear.
- 8) All 4 wheels MUST be BSA Wheels. (Colored wheels are allowed.) Only *LIGHT SANDING* to remove MINOR imperfections is permitted. *No alterations!* Nothing removed! Nothing added! No outer coverings. (Fenders are allowed.) ALL 4 wheels MUST be in CONTACT with the lane at the same time throughout their full rotation!
- 9) ONLY a DRY graphite-based lubricant is permitted. It cannot be applied after the car has past inspection.

## The 2021 Northampton County District (NCD) Pinewood Derby® (PWD) Checklist Rules

### Weight/Overall Inspector

\_\_\_\_\_ Guided by the **Scout Law & Oath**  
(Have Fun & Do Your Best)

\_\_\_\_\_ Car Submitted by **Registered Scout**  
(ALL Lions to 2021 Former AOLs with Their Racing Team)

\_\_\_\_\_ **Unaltered** Since Pack Inspection  
(ONLY More Graphite & Wheel Cleaning Permitted)

\_\_\_\_\_ **No Sticky Substance**  
(No Excess Glue, Wet Paint, Tape, Magnets, Etc.)

\_\_\_\_\_ **No Moving Weights or Liquids**  
(All Parts Solid, Secure, & Safe)

\_\_\_\_\_ **WEIGHT ≤ 5.00 OUNCES!**  
(Not Grams. Up to 5.004 Ounces Permitted. NOT 5.005)

\_\_\_\_\_ **Cub Scout** should be in **Class A Uniform**  
(Represent Your Pack Pride. If Possible, Bring the Pack Flag/Base)

\_\_\_\_\_ **Scout Built This School Year from Scratch**  
(NO Repeats, Repaints, Old Components, Professional, Etc.)

\_\_\_\_\_ **BODY Component is a BSA PWD BLOCK!**  
(NO Other Material, Blocks, Kits, Prefinished, Professional, Etc.)

\_\_\_\_\_ **If Lights/Sound Attached, Turned Off**  
(However, Lights & Sounds are Encouraged for Creativity)

\_\_\_\_\_ **No Fragile or Loose Parts**  
(No Glass, Mercury, Dangerous Parts, Etc.)

\_\_\_\_\_ **GRAVITY POWERED ONLY!**  
(NO PROPULSION SYSTEM. PERIOD!)

### Dimensions Inspector

\_\_\_\_\_ **OVERALL LENGTH = 7"** (Equals)  
(Caution Block's Length, Cutting Ends, Adding Lights, Pipes, Etc.)

\_\_\_\_\_ **OVERALL WIDTH ≤ 2 3/4"**  
(Including Wheels & the Axle Heads & Fenders, Etc.)

\_\_\_\_\_ **Wheels Do Not Extend Beyond Body**  
(Wheels MUST Remain Behind PWD Block's Front & Rear Ends)

\_\_\_\_\_ **WHEELBASE LENGTH = 4 3/8"**  
(Do NOT Make New Axle Slots or Extend Wheelbase)

\_\_\_\_\_ **Underside Attachment Width ≤ 1 1/8"**  
(Centered & NO Sharp &/or Abrasive Material)

\_\_\_\_\_ **Bottom of Nose (Front) ≤ 1" High**  
(Up Curved Nose Allowed)

\_\_\_\_\_ Height ≤ 6" (Lower the Better)  
(NCD PWD BestTrack® Champ Timer Clearance is 6 1/2")

\_\_\_\_\_ **WIDTH Between Wheels ≥ 1 3/4"**  
(Inside Edge *Between Wheels* Using Same Axle Slot)

\_\_\_\_\_ **No Protrusion Beyond Starting Pin**  
(NOTHING May Extend Beyond the Starting Side of the Pin)

\_\_\_\_\_ **Lengths: Front & Back** are 1 5/8" & 1"  
(From Each Associated Axle Slot to the PWD Block Ends)

\_\_\_\_\_ **GROUND CLEARANCE ≥ 3/8"**  
(NO MORE than 1/8" of Parts Added to Underside of Car)

\_\_\_\_\_ **Nose (Front) Width ≥ 1/2", Centered**  
(No Pointy Nose)

### Axles Inspector

\_\_\_\_\_ **AXLES are 4 BSA PWD NAILS!**  
(NO Other Axles. No Prefinished, Professional, Etc.)

\_\_\_\_\_ **2 Wheels & 2 Axles** per Axle Slot  
(Each Axle's Pair of Wheels MUST be Across from the Other)

\_\_\_\_\_ **Smooth** (if Desired) **Unaltered** Axles  
(ONLY Filed, Sanded, Polished, & Graphite Permitted)

\_\_\_\_\_ **NO BEARINGS/BUSHINGS/WASHERS!**  
(ONLY Axle, Wheel, PWD Body, & Graphite Permitted)

\_\_\_\_\_ **ONLY DRY GRAPHITE-Based Lube!**  
(NO OIL! No Liquid Lubricant! PERIOD!)

\_\_\_\_\_ **Both Original Axle Slots Used & Visible**  
(ONLY Adjustments Allowed: True Slots & Pre-Drill to Fit Axles)

\_\_\_\_\_ **Each Axle Tip Visible** (Do Not Cover)  
(Caution the Clarity of Adhesive If Used)

\_\_\_\_\_ **NO SPRINGS/SUSPENSION!**  
(PERIOD! Not Even the Body)

### Wheels Inspector

\_\_\_\_\_ **WHEELS are 4 BSA PWD WHEELS!**  
(Colored Wheels Allowed. No "CHINA", *Prefinished, Professional, Etc.*)

\_\_\_\_\_ **Tread is Flat & Parallel to Bore**  
(NO Reshaping Tread at ALL. Lattice MUST Face Outward)

\_\_\_\_\_ Correct **LETTERS/NUMBERS** Intact  
(BSA / PINWOOD DERBY®) (OFFICIAL BSA / # / MADE IN USA)

\_\_\_\_\_ **NO MATERIAL REMOVED IN/OUT!**  
(NO Lathe, Narrow, Lighten, Hub Stepdown Removal, Etc.)

\_\_\_\_\_ **NOTHING** but **4 Wheels Contact** Lane  
(Wheels NOT Required to be Flat on Track. Canted Allowed)

\_\_\_\_\_ **NO WHEEL ALTERATIONS!**  
(ONLY Adjustments Allowed: Polish Bore, Hubs, & Tread)

\_\_\_\_\_ **NO MATERIAL ADDED** Except Graphite  
(NO Inside/Outside Cover, Hubcap, Paint, Nail Polish, Etc.)

\_\_\_\_\_ **Outside FULLY Intact & UNALTERED**  
(Small Dotted, Bumps Along Tread & Sidewall. Lattice Also)

\_\_\_\_\_ **ONLY LIGHT SANDING** Permitted  
(ONLY TO REMOVE **MINOR** SURFACE **IMPERFECTIONS!**)

\_\_\_\_\_ **NO RAISED WHEEL! PERIOD!**  
(NO GAP Under Any Wheel. Test on Smooth Rigid Flat Surface)