

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 & 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 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.

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

- 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

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| <p>_____ Guided by the Scout Law & Oath
(Have Fun & Do Your Best)</p> <p>_____ Car Submitted by Registered Scout
(ALL Lions to 2021 Former AOLs with Their Racing Team)</p> <p>_____ Unaltered Since Pack Inspection
(ONLY More Graphite & Wheel Cleaning Permitted)</p> <p>_____ No Sticky Substance
(No Excess Glue, Wet Paint, Tape, Magnets, Etc.)</p> <p>_____ No Moving Weights or Liquids
(All Parts Solid, Secure, & Safe)</p> <p>_____ <u>WEIGHT ≤ 5.00 OUNCES!</u>
(Not Grams. Up to 5.004 Ounces Permitted. NOT 5.005)</p> | <p>_____ Cub Scout should be in Class A Uniform
(Represent Your Pack Pride. If Possible, Bring the Pack Flag/Base)</p> <p>_____ Scout Built This School Year from Scratch
(NO Repeats, Repaints, Old Components, Professional, Etc.)</p> <p>_____ <u>BODY Component is a BSA PWD BLOCK!</u>
(NO Other Material, Blocks, Kits, Prefinished, Professional, Etc.)</p> <p>_____ If Lights/Sound Attached, Turned Off
(However, Lights & Sounds are Encouraged for Creativity)</p> <p>_____ No Fragile or Loose Parts
(No Glass, Mercury, Dangerous Parts, Etc.)</p> <p>_____ <u>GRAVITY POWERED ONLY!</u>
(NO PROPULSION SYSTEM. PERIOD!)</p> |
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Dimensions Inspector

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| <p>_____ <u>OVERALL LENGTH = 7"</u> (Equals)
(Caution Block's Length, Cutting Ends, Adding Lights, Pipes, Etc.)</p> <p>_____ <u>OVERALL WIDTH ≤ 2 3/4"</u>
(Including Wheels & the Axle Heads & Fenders, Etc.)</p> <p>_____ Wheels Do Not Extend Beyond Body
(Wheels MUST Remain Behind PWD Block's Front & Rear Ends)</p> <p>_____ WHEELBASE LENGTH = 4 3/8"
(Do NOT Make New Axle Slots or Extend Wheelbase)</p> <p>_____ Underside Attachment Width ≤ 1 1/8"
(Centered & NO Sharp &/or Abrasive Material)</p> <p>_____ Bottom of Nose (Front) ≤ 1" High
(Up Curved Nose Allowed)</p> | <p>_____ Height ≤ 6" (Lower the Better)
(NCD PWD BestTrack® Champ Timer Clearance is 6 1/2")</p> <p>_____ <u>WIDTH Between Wheels ≥ 1 3/4"</u>
(Inside Edge <i>Between Wheels</i> Using Same Axle Slot)</p> <p>_____ No Protrusion Beyond Starting Pin
(NOTHING May Extend Beyond the Starting Side of the Pin)</p> <p>_____ Lengths: Front & Back are 1 5/8" & 1"
(From Each Associated Axle Slot to the PWD Block Ends)</p> <p>_____ <u>GROUND CLEARANCE ≥ 3/8"</u>
(NO MORE than 1/8" of Parts Added to Underside of Car)</p> <p>_____ Nose (Front) Width ≥ 1/2", Centered
(No Pointy Nose)</p> |
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Axles Inspector

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| <p>_____ <u>AXLES are 4 BSA PWD NAILS!</u>
(NO Other Axles. No Prefinished, Professional, Etc.)</p> <p>_____ 2 Wheels & 2 Axles per Axle Slot
(Each Axle's Pair of Wheels MUST be Across from the Other)</p> <p>_____ Smooth (if Desired) Unaltered Axles
(<u>ONLY</u> Filed, Sanded, Polished, & Graphite Permitted)</p> <p>_____ <u>NO BEARINGS/BUSHINGS/WASHERS!</u>
(ONLY Axle, Wheel, PWD Body, & Graphite Permitted)</p> | <p>_____ <u>ONLY DRY GRAPHITE-Based Lube!</u>
(NO OIL! No Liquid Lubricant! PERIOD!)</p> <p>_____ Both Original Axle Slots Used & Visible
(ONLY Adjustments Allowed: True Slots & Pre-Drill to Fit Axles)</p> <p>_____ Each Axle Tip Visible (Do Not Cover)
(Caution the Clarity of Adhesive If Used)</p> <p>_____ <u>NO SPRINGS/SUSPENSION!</u>
(PERIOD! Not Even the Body)</p> |
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Wheels Inspector

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| <p>_____ <u>WHEELS are 4 BSA PWD WHEELS!</u>
(Colored Wheels Allowed. No "CHINA", Prefinished, Professional, Etc.)</p> <p>_____ Tread is Flat & Parallel to Bore
(NO Reshaping Tread at ALL. Lattice MUST Face Outward)</p> <p>_____ Correct LETTERS/NUMBERS Intact
(BSA / PINEWOOD DERBY®) (OFFICIAL BSA / # / MADE IN USA)</p> <p>_____ <u>NO MATERIAL REMOVED IN/OUT!</u>
(NO Lathe, Narrow, Lighten, Hub Stepdown Removal, Etc.)</p> <p>_____ NOTHING but 4 Wheels Contact Lane
(Wheels NOT Required to be Flat on Track. Canted Allowed)</p> | <p>_____ <u>NO WHEEL ALTERATIONS!</u>
(ONLY Adjustments Allowed: Polish Bore, Hubs, & Tread)</p> <p>_____ NO MATERIAL ADDED Except Graphite
(NO Inside/Outside Cover, Hubcap, Paint, Nail Polish, Etc.)</p> <p>_____ Outside FULLY Intact & UNALTERED
(Small Dotted, Bumps Along Tread & Sidewall. Lattice Also)</p> <p>_____ <u>ONLY LIGHT SANDING Permitted</u>
(ONLY TO REMOVE <u>MINOR</u> SURFACE <u>IMPERFECTIONS!</u>)</p> <p>_____ <u>NO RAISED WHEEL! PERIOD!</u>
(NO GAP Under Any Wheel. Test on Smooth Rigid Flat Surface)</p> |
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