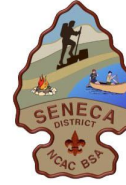




Seneca District Pinewood Derby Rules 2020



1) ELIGIBILITY

- a) The first place car for each rank level (Tiger, Wolf, Bear, Webelos, and Arrow of Light) in each pack is eligible to compete in the district race. Lions are not eligible to participate in the District Race.
- b) Each pack may also send one car for the appearance competition. The pack will determine the criteria for selection of their entry. These cars will also compete in a speed competition with other appearance car entries. These cars must also comply with all rules.
- c) The Scout must be present to race his/her own car. If a qualifying scout can not attend the race, the pack may select an alternate scout to race his/her own car.
- d) Each car must pass inspection and weigh-in before it can compete. The Inspection Team has the right to disqualify those cars which do not meet the District Derby Rules. Car owners will be informed of the violations and given the opportunity to modify the car to meet the Derby Rules prior to the start of the race. Modifications for compliance must be completed 10 minutes prior to the first race heat or the car will not be allowed to run.
- e) Any participant (including the parent/Akela of the participant) has the right to appeal to the Pinewood Derby Race Committee for an interpretation of these rules. Decisions of the Race Committee and the Pinewood Derby Race Chairman will be final.
- f) Each Pack MUST provide the name of one person who, if necessary, can be called upon to assist with Derby Day jobs. If no volunteer is shown on the registration form, the pack official signing the registration will be the individual contacted prior to Derby Day for job assignments.
- g) By signing the Seneca District Pinewood Derby Registration Form or registering online, the unit leader acknowledges that his/her Pack's cars meet the 2019 Seneca District Derby requirements and that all competitors agree to abide by these rules.



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2) CAR COMPONENTS

- a) An official Cub Scout Pinewood Derby Car Kit car kit is not required for the body of the car. **However:**
 - b) The main body connecting the two axles must be a single piece of wood.
 - c) Only axles from an official Cub Scout Pinewood Derby Car Kit can be used for competition in Seneca District Pinewood Derby events.
 - d) Wheels must be either directly from the official BSA kit or from BSA approved wheel kits such as the colored wheels available separately at the Scout store. These wheels will have Made In U.S.A. molded on the inside of the wheel.
 - e) Commercially pre cut Pinewood Derby car kits may be used if they meet the dimensions shown in the picture below. ***Wheels and axles in the commercial kits may not be used.*** Only BSA official wheels and axles may be used. The solid metal axles, wheels and end caps found in commercial kits may not be used. Official BSA wheels of other colors are allowed.

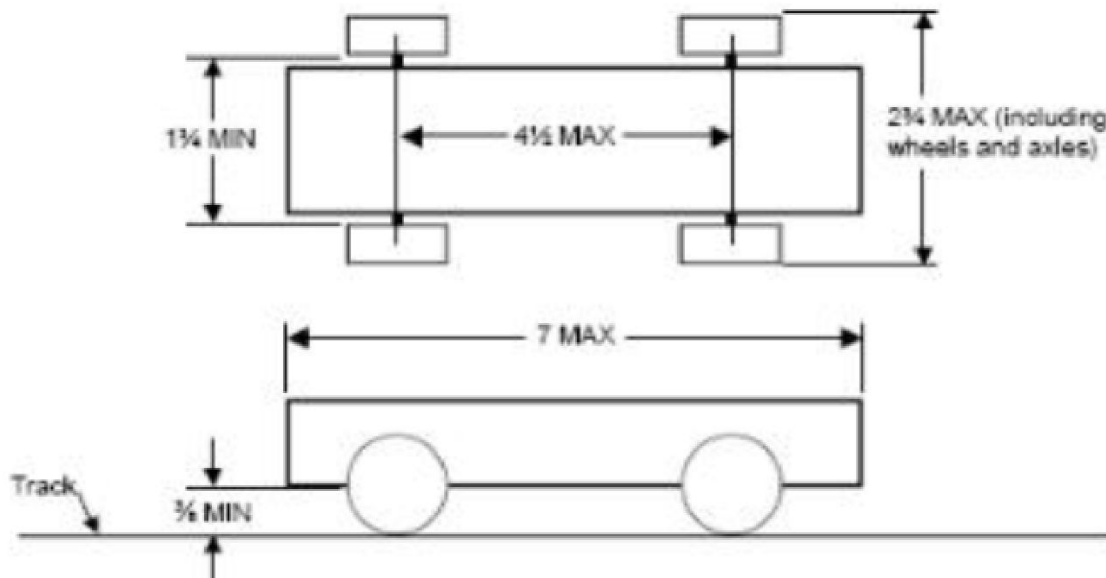
3) CAR DIMENSIONS (Length, width, clearance, height) See diagram on next page.

- a) **Width** - Maximum car width (including wheels and axles) shall not exceed $2 \frac{3}{4}$ inches.
- b) **Minimum spacing between wheels** - shall be $1 \frac{3}{4}$ inches.
- c) **Clearance** - Between the bottom of the car and track shall be $\frac{3}{8}$ inches so the car will clear center guide strip. The center guide strip is $\frac{1}{4}$ " tall and $1-\frac{5}{8}$ " wide. If the car cannot clear the guide strip it will be disqualified.
 - i) The wheels are the only part of the car allowed to touch the track at any time.



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- d) **Length** - Car length shall not exceed 7 inches. This measurement includes any additional decorations added to the car such as wings and spoilers.
- e) **Wheelbase** - The distance between the front and rear axles shall not measure more than 4 ½ inches. If new axle locations are cut or drilled, make sure the distance between axles does not exceed 4 ½ inches.
- f) **Height** - shall not exceed 4 ½ inches.
- g) **Nose** - 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 must be at least 1/2 inch wide at the center of the car.





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4) WHEELS AND AXLES

- a) As noted above, only the wheels and axles provided with an Official Cub Scout Pinewood Derby Car Kit can be used. Axles may be polished. Wheels may be lightly sanded to remove the mold projection on the tread. This light sanding is the only wheel modification allowed. Four wheels must be used, one per axle – no more, no less; however, all four wheels are not required to touch the track.
- b) The use of beveled, tapered, thin sanded, wafered, or lathe-turned wheels is prohibited. Any attempt to reduce the running surface of the wheel in this fashion will disqualify the car. **See following diagram**
- c) Any attempt to reduce the weight of the wheels will disqualify the car. Wheels must weigh no less than 2.45g (Note, unmodified kit wheels are 2.5g).
- d) The use of bearings, bushings, or spacers between the wheel and car body are prohibited.
- e) The car must be free-wheeling with no starting devices, springs or other methods of propulsion.
- f) Coverings placed on the wheel rim to hold graphite or lubricant around the nail axle head are not permitted for this race.
- g) Modifications to the Axles are allowed that include straightening, sanding, polishing, and canting. Grooving, beveling and tapering of **axle head** is allowed as long as the Diameter of the Axle is not reduced. The Diameter may not be less than 0.084 inches (2.13mm).
- h) Axles can be mounted by drilling axle holes or inserted into the factory or custom slots on car. If axle holes are drilled, a ¼ inch ‘visibility hole’ should be drilled



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CLARIFICATION OF DISQUALIFYING / ALTERED WHEELS

No alteration, narrowing, lathe cutting, or re-shaping of wheels (inside or outside) is allowed!!!!

<p style="text-align: left; margin-left: 10px;">STANDARD WHEEL</p>	FAIL	FAIL	FAIL	FAIL	
	ROUNDED WHEEL	"V" WHEEL	CUPPED WHEEL	REDUCED DIAMETER	
FAIL	FAIL	FAIL	FAIL	FAIL	FAIL
"H" WHEEL	RIBBED WHEEL	SPEED WHEEL	SLANTED OUT	SLANTED IN	KNIFE EDGE

NO LIGHTENING OF THE WHEEL IS ALLOWED

LIGHT SANDING OF WHEEL TREAD TO REMOVE IRREGULARITIES IS PERMISSIBLE. WHEEL TREAD MUST BE FLAT!

MINIMUM WHEEL DIAMETER ALLOWABLE IS 1.170 INCHES.
MINIMUM WHEEL WEIGHT OF EACH WHEEL IS 2.45 GRAMS.

from the bottom of the car at the tip of the nail axle. This will allow inspectors to verify nail axles are being used.



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5) WEIGHT AND APPEARANCE

- a) Weight shall be less than or equal to 5.00 ounces. 5.009 ounces is acceptable but 5.010 ounces is too heavy. The readings of the official race scale will be considered final. The car may be hollowed out and built to the maximum weight by the addition of wood, metal, plastic, paint, or decals only, provided it is securely built into the body or firmly affixed to it. No loose materials of any kind are permitted in or on the car.
- b) Mercury, Uranium, Plutonium, or other dangerous materials shall not be used in adding weight to the car.
- c) Details such as steering wheel, driver, spoiler, decals, painting, and interior details are permissible as long as these do not exceed the maximum length, width, and clearance specifications.
- d) Cars with wet paint or glue will not be accepted at registration and weigh-in.

6) LUBRICATION

- a) Only dry powdered lubricants, such as graphite, may be used. Remember, oils and silicone sprays may soften the wheels and are prohibited at District competition.
- b) Once the car is registered, only the Derby Committee will handle the car. Be sure you have lubricated the axles and completed any last minute repairs before you register the car.



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7) RACING RULES

- a) Cars must have been made specifically for the 2019 Pinewood Derby competition. Pinewood Derby Cars raced in prior competitions are not permitted.
- b) The race will be scored using the computer software. The software is integrated with a timing system that electronically times the cars. Scoring of the cars is not determined by heat placement, but by the total time calculated from the four heats of each car.
- c) There will be at least two judges at the finish line. If there is a failure of the electronic timing system, the heat will be rerun.
- d) If a car comes off the track during the race, the following rules will apply:
 - i) A "No Race" will be declared, and the heat will be run again. If the same car jumps off the track a second time, it will be disqualified from competition and given times of 9.999s for remaining runs.
 - ii) If a car leaves its lane and interferes with another car, a "No Race" will be declared, and the heat will be run again. If the same car leaves its lane a second time and/or interferes with another car, the interfering car will be disqualified and be given a time of 9.99 seconds for the heat. In the event a car interferes with another car for a second time, the remaining cars will run a third heat.
- e) If a car suffers a major mechanical problem, a "No Race" will be declared, and you will have five minutes to accomplish repairs. The heat will be run again. If not, the damaged car will automatically lose the heat and receive a time of 9.99 seconds for the heat.
- f) Any car that does not make it to the finish line will receive a time of 9.99 seconds for that heat.



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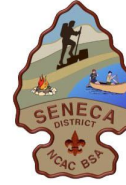
- g) Only race officials will be permitted into the track area.
- h) Ties between 2 or more cars, which are in contention for a speed award, will result in a mini runoff to determine the placing of the tied cars. Run-offs will use the same format as was used in the main event (i.e. all cars race in all lanes).
- i) All scouts and leaders who attend District competition are reminded to wear their class A uniforms.

8) INSPECTION AND DISPUTES

- a) Each car must pass inspection and weigh-in before it can compete. The Inspection Team has the right to disqualify those cars that do not meet the Derby rules. Car owners will be informed of the violations and given the opportunity to modify the car to meet the Derby Rules prior to the start of the race.
- b) Any participant (including the parent/Akela of the participant) has the right to appeal to the Pinewood Derby Race Committee for an interpretation of these rules. **Decisions of the Race Committee are final.**



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9) QUESTIONS AND CONTACT INFORMATION

- a) All questions regarding the rules should be addressed to the Pinewood Derby Chairperson.

10) AWARDS

- a) Awards will be presented for the following categories:
 - i) Top three overall places in the District
 - ii) Top three places in each Rank but not in the top 3 overall.
 - iii) Best Craftsman
 - iv) Best Concept
 - v) Cub's Choice

Cars can win both a speed and design award. No more than one of each award type per car. Design awards other than Cub's Choice will be selected by judges appointed by the Derby Chairman.

Best Craftsman – The car that best exemplifies craftsmanship qualities, such as body shaping and paint finish.

Best Concept – The car that best exemplifies a unique and creative car design while maintaining qualification to race.

Cub's Choice – The car selected by the Cub Scouts as their favorite car.



Seneca District Pinewood Derby Rules 2020



Acknowledgement of Rules

Each Scout is expected to read and abide by all the Pinewood Derby Rules and return this page signed to the District Competition Committee at inspection..

On my honor as a Scout, I have read and followed both the letter and spirit of the rules for this competition. At the best of my ability, I have worked with my Akela to be the primary builder of this car. I understand that if my car is found to be in violation of the rules and/or spirit of this event I may be disqualified from competing.

Signature of Scout Date

Signature of Akela Date