

2019 OFFICIAL HERITAGE TRAILS DISTRICT PINWOOD DERBY RULES & GUIDELINES

This year's Official District Pinewood Derby Race will be held on Saturday, March 30th, 2019. The races run approximately from 10 am to 4 pm and are being held at the St. Paul's United Methodist Church at 45 First Avenue, Red Lion, PA. The official race times will be staggered by rank for efficient use of everyone's time and coordination. Race and inspection times will take place according to the following schedule: Race times are approximate and will vary depending on the number of entries. We will do our best to stay on schedule. Please arrive early and be patient.

Opening Ceremony:			10:20 am -10:30 am
AOL:	Inspections:	10:00 am - 10:30 am	Race: 10:30 am - 11:00 am
Webelos:	Inspections:	10:30 am - 11:00 am	Race: 11:00 am - 11:30 am
Bears:	Inspections:	11:00 am - 11:30 am	Race: 11:30 am - 12:00 pm
Wolves:	Inspections:	11:30 am - 12:00 pm	Race: 12:00 pm - 12:30 pm
Tigers:	Inspections:	12:00 pm - 12:30 pm	Race: 12:30 pm - 1:00 pm
Lions:	Inspections:	12:30 pm - 1:00 pm	Race: 1:00 pm - 1:30 pm
District Championship Race:			Race: 2:00pm – 2:30 pm
Demolition Derby:			Race: 2:30 pm - 3:30 pm
Outlaw Race:			Race: 3:30pm – 4:30 pm

Note: Racers can have their cars inspected at any time prior to their race, but preference will be given to each rank during the last 30 minutes prior to their race.

An Awards Ceremony will immediately follow the District Championship Race. Registration fees for the Official District Pinewood Derby Race are \$6.00. See separate Registration Form to register. Fee include a custom Derby Day patch and helps cover the cost of the trophies for 1st, 2nd & 3rd place in all ranks and the district championship race. Other events, such as the Pinewood Demolition Derby, and the Einstein Derby will take place throughout the day. See these event rule sheets for fees, inspection times and race times.

Food, snacks and drinks will be sold at a minimum cost. Proceeds gained from these sales will be used to help cover the costs of the District Derby. The host Pack for this year's Derby Day is Pack 28, Red Lion, PA.

Our main goal is to be fair to all scouts. Each scout registered for the Official District Pinewood Derby Race must meet one of two conditions at their pack level. The first condition is that the registered racer must have come in 1st, 2nd, or 3rd in their rank at the Pack level, OR the registered racer must have been declared one of the top 15 fastest cars in their Pack. The registered racer must also be an active Cub Scout of the Heritage Trails District within the New Birth of Freedom Council. The advancement to the Official District Pinewood Derby is presented to the racer himself, not to the winning car. This means that the racer has three options before him, he can either take the car he won with at the Pack level and enter it into the District Race, or he can make modifications to his car that won at the Pack level and enter it into the District Race, or he can build an entire new car for the District Race. Regardless of the racer's decision, the car the racer chooses to enter into the District Race must meet the provided specification rules and must pass inspection by Derby Inspectors before it will be allowed to compete. Any car that does not meet the specification rules or cannot pass inspection will be disqualified. Opportunities to correct the race car will be provided. Note that some minor variances to the inspection points may be allowed provided that no advantage is perceived by the Derby Inspectors; however, if an advantage is perceived the car will be disqualified.

Any objections, challenges, or questions of the rules will be handled civilly through the appropriate Chairperson and the Race Commissioner. Good sportsmanship, patience and cooperation are expected.

Inspection & Building Rules

Please note that only official BSA approved axles and tires are appropriate. Wheels and axles may be put on your car prior to inspection; however, the Derby Inspectors reserve the right to ask you to remove a wheel and axle if they suspect an infraction of the rules that pertain to that area. Any car that is disqualified will not be allowed to race in the Official District Pinewood Derby Race, but may be eligible for any of the other derby events that are running that day.

Specification Rules & Inspection Points

1. The car weight must not exceed 5.0 ounces.
2. The overall length of the car cannot exceed 7.0 inches from front to back for all parts of the vehicle.
3. The overall width of the car may not exceed 3.0 inches (including wheels).
4. The car should have 1 ¾ inches clearance between the inside edges of the wheels across the width of the car to allow for a center guide on the track.
5. The car should have at least a 3/8 inch clearance underneath the body, so that it does not drag against the center guide rail on the track.

6. Only non-liquid wheel lubrication is permissible for use on your Pinewood Derby Car. Graphite is acceptable. Once a car has been inspected and impounded, no further lubrication can be added to the car for the remainder of the District Race.
7. Only official BSA wheels may be used. Tools are now sold by the BSA Scout Shops to help you make your wheels better. Because of this, wheels may only be modified with light sanding to overcome mold flashing, irregularities in shape, and to smooth the edges. Wheels must be left straight across the tread. The wheel diameter must not be less than 1.80 inches and the wheel width must not be less than 0.360 inches, on a digital caliper.
8. Only official BSA axles (nails) may be used. Tools are now sold by the BSA Scout Shops to help you make your axles better and easily change their positions on the block. Axles may be filed and polished but filing grooves in your axles is prohibited. You may true-up or straighten the axles and you may taper the head of nail as well. The position of the axles is not limited to the slots cut into the wood block. The axle wheel base may be changed if desired.
9. The car must have four (4) wheels and axles; however, only three (3) wheels are required to make contact with the track. Tools are now sold by the BSA Scout Shops that allow you to easily raise one wheel on your car if desired. No wheel replacement fins are allowed.
10. Wheel bearings, washers, hubcaps or bushings are prohibited. Note that a sticker on a wheel is not considered a hubcap unless it covers up the nail head of the axle.
11. The car must not ride on any type of springs or similar device such as soft plastics.
12. The car must be freewheeling, with no starting devices. The car body may have no moving parts that would aid performance. Potential energy from gravity is the only source of power acceptable. A spinning light inside something, like a policeman's light, is permitted. It is prohibited to have a device on the car that shifts a measurable amount of weight along the axis of movement.
13. Decorations are permitted for use on the car, provided they are securely fastened and do not violate any of the other rules or interfere with any of the other racing cars on the track.
14. No loose material of any kind, such as lead shot or weights on rubber bands, may be used.

If at inspection a car does not pass, the owner will be informed of the observed problems and will be given until the end of the official inspection for their race group (typically 10 minutes before) in which to correct the problem. If the problem can be immediately solved by adding or removing a small weight (i.e. coin, washer, etc.) it may be permitted. If it cannot be solved immediately then another inspection is required. If there is only 10 minutes left, we'll do what we can to help you get your car adjusted so it will pass inspection and be able to start with your

race group. Please remember that the District Race is on a very tight time schedule, so try to arrive as early as possible before your race group starts. Any car that is disqualified will have the opportunity to be re-inspected for other derby events held that day. After inspection all cars will be impounded until the start of the race. Once a car is impounded, it will only be handled by race officials until after the District Race.

Construction of all cars must have been done by the Scout/Parent team and must have begun after last year's races. Pre-built cars purchased off of Internet sites (such as Ebay) are prohibited.

Only one car may be registered per racer in the Official District Pinewood Derby race. A second separate car may be registered in any of the other Pinewood Derby events that are being held that day. The same car cannot be registered in both the Official District Race and another derby event being held at the same time that day. Cars that do not make it to the District Championship round can be claimed as soon as their rank races have officially been declared as finished.

Race Rules

Our goal is to be fair. That means the Derby Track Chair may need to adapt the rules to the situations as they arise. Please support us in this.

1. All cars will be assigned a number to easily identify it when called to race and placed in the designated track lane.
2. If a car leaves the track without interfering with its opponents, it shall be considered to have ended its heat at that point.
3. If a car leaves its lane, the Derby Track Chairman (at his sole discretion) may inspect the track and, if a track fault is found which probably caused the accident, the track chairman may order the race heat to be rerun after the track is repaired. The track chairman will also allow repair to the vehicle if possible.
4. If during a race heat, a car leaves its lane and, in so doing, interferes with another racer, then the race heat shall be run again. All cars affected may be repaired as best possible.
5. If a car leaves its lane or interferes with another car in another lane in more than three heats during the race it shall be disqualified and removed from the race.
6. If during a race heat, no car reaches the finish line on the track, the car, which went the farthest in its lane, shall be declared as the heat winner, with others placing respective to the distance they traveled.
7. All cars will be staged at the beginning of each race by the District Track Chairman and crew. After each race the cars shall be returned to the impound area by race staff. Scouts will not be allowed to handle their cars until the conclusion of the derby.

8. If any other condition seems to create a problem with the race and its outcome, it may be run again at the sole discretion of the District Track Chairman.

Race Lineup

There are several methods to create the racing lineup sheets, all of them being equal. Much depends on how many Scouts are registered within each rank, from each Pack. Last minute adjustments may occur to compensate for uncertainties. At times we may have to use less than all 6 lanes of the track. This is done to allow the fairest race lineup so the scoring style will not be overly affected.

Scoring

This year, we will be using a point based scoring system that is fitted to a Partial Perfect N racing method. Points will be awarded for 1st, 2nd, & 3rd places within each heat (1st Place = 1 point, 2nd Place = 2 points and 3rd Place = 3 points). All cars will have an equal amount of runs down the track and each car will run at least once on each track lane. The order of finish, as determined by the track sensors, will be documented by the race computer. Any point ties will be settled by the race computer, which will base its decision on actual speed times and comparisons to mutually raced opponents. If a sensor does fail to trigger, the Derby Track Chairman may direct that particular heat be rerun.

The top three racers with the lowest accumulated points in each rank will qualify for the District Championship race.

Awards will be given for the top three winners in each rank and to the top three District Champions.

Questions

If you have any questions pertaining to registration, volunteering or the rules within this document, please email the District Executive, John Blasius (John.Blasius@scouting.org) for clarification.