

Aquila District Pinewood Derby 2018



Heat Races For

**CUB SCOUTS, NON SCOUTS
AND THE 2018 UNIT CHALLENGE**

**Trophies for First, Second and Third Place
Ribbons and neckerchief slides
for all racers**

Highline United Methodist Church
13015 1st Ave S
Burien, WA 98168

Saturday April 21, 2018
9:00 AM to 1:00 PM



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Burien, WA 98168
(Basement – SW corner of the Building)

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Overview

The Pinewood Derby is open to all registered Cub Scouts in the Aquila District (including Tiger Cubs), their siblings and each pack is allowed 1 car built by an adult for the “ADULT UNIT CHALLENGE” To participate, each Scout and/or sibling (with the help of their Parents), build and decorate one car starting with a **Official Grand Prix Pinewood Derby kit**. The kit contains a block of wood, four wheels, and four small nails to use as axles. *The cars must meet strict rules regarding the materials used, weight, dimensions, and other aspects of the car.*

**The entry fee is \$5.00 if you preregister by April 12, 2018
or \$8.00 per racer after April 12, 2018**

All cars competing must have passed inspection and be registered by 9:45am in order to participate. **The software we will be using does not permit late entries, so the registration end time will be strictly followed. Please be prompt and allow time to check in your car and register. You should allow twenty minutes for this process just in case you need to make adjustments to meet regulations!**

Winners will be decided by adding the times of each race and the car with the lowest total time will be the winner. Each car will be run the same number of times on each of the three lanes.

Race Classes

There will be seven classes of racing: Tiger / Wolf Bear / Webelos / Non Scout 13and under / Teen-Adult / Adult Unit Challenge. All cars must pass the same qualification inspections. Each Cub Scout may enter only one car and will race against other scouts in his age group. The siblings will race in two separate groups: Children 13 and under, and Adults and Teens 14 and older. The Adult’s Unit Challenge will be a race between participating Scouting Units where one adult-built car will represent each participating pack and will wear that pack’s number. **(We suggest several people build cars and test them against each other to decide which car or cars will represent your pack before coming to the district race.)**

Dress Code

This is a Scouting event. Please wear your uniforms.

Pinewood Derby Day Schedule:

<u>Time</u>	<u>Event</u>
9:00AM	Registration Opens
9:45AM	Registration Closes
10:00 AM	Racing Begins
1:00 PM	Awards

Be certain to arrive early enough!
The software we use does not permit late entries.

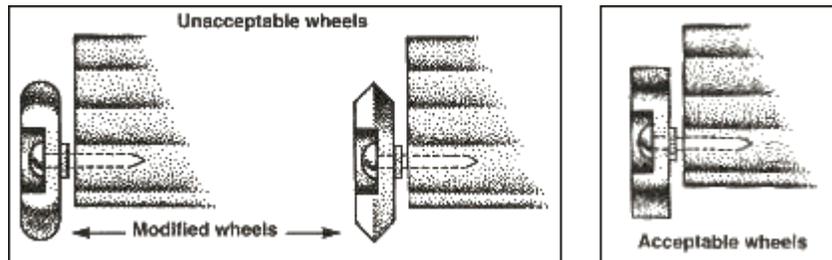
Parent Participation and Safety

Parents are encouraged to teach new skills and principles as the scouts build their cars. The Scout should do as much as he can by himself, try not to be too critical or expect perfection. Any technical assistance given by an adult should be fully explained to the Scout so that he may use the knowledge on future projects. Above all else, participating in the Pinewood Derby should be safe and fun. Power tools, sharp hand tools, paints, glues, and other potentially dangerous items must only be used under the careful and strict supervision of a knowledgeable adult. Under **no circumstances** must parents work on a Pinewood Derby racecar when the Scout is not present.

Rules

Note: Each Scout is responsible for understanding and following all rules. Nothing would be more heartbreaking than to work hard on a car and then have it disqualified for a rule violation. **Parents:** please review the rules with your Scout and help him understand the regulations, science, and sportsmanship of Pinewood Derby.

1. Car weight shall not exceed 5.000 ounces (**By the Derby's official scale**); car dimensions shall not exceed 7 inches in length, 2 ¾ inches in width, or 4 ¾ inches in height.
2. Sufficient space of 3/8 inch must be provided under the car to clear the guide rail. The car will have to clear the Official test block, 3/8 inch thick and 1 ¾ inch wide.
3. Only wheels and axles from the **Official BSA Pinewood Derby kit or BSA Supplement kit** may be used.
4. Weights and detail items (such as decals, driver figures, steering wheels, exhaust pipes, etc) from other sources are acceptable as long as they are secured and do not fall off and do not cause the car to violate any other rules.
5. Cars must have been built for the 2011– 2013 pack year race. Cars from previous years (whether raced or not) are not permitted.
6. Wheel bearings, washers, or bushings on wheels or axles are not allowed.
7. Only approved dry powder lubricants may be used, as available at scout headquarters – these include graphite (black/gray) and Teflon (white). Lubes may only be applied outside the building, or at the designated 'pit' area, before final inspection. Excess powder must be shaken off before bringing the car into the building. Lubricant may not be applied to cars after registration.
8. One-piece axles are prohibited. Four nail-type axles provided in the **BSA Pinewood Derby car kit or BSA Supplement kit** must be used and must all be in the same plane.(all four wheels must touch the track at the same time.)
9. The car shall not ride on any type of spring.
10. The car must be freewheeling, with no starting devices.
- 11.No loose materials of any kind are allowed on or inside the car. – any item that falls off during the race will be left off and that is how the vehicle will continue to race. If the piece fell off after a accident with a another vehicle then if the official allows, then it may be repaired
- 12.Wheels may not be tapered , rounded or narrowed. Sanding excess plastic mold material at seam lines (assuring that each wheel is round) is permitted.



- 13.The lateral distance between wheels (e.g., from the inside of the left front wheel to the inside of the right front wheel) must be at least 1 ¾ inches.
14. The length of the wheelbase and/or position of the wheels on the car may be modified. Either end of the wood block may be designated to be the front of the car.
- 15.Weights must be an integral part of the car chassis. Weights may not be held in place using tape. (The exception to this rule is if you are using stick on mag wheel weights.
- 16.Scouts are responsible for being on time. Cars must be registered before the race times published prior to the Derby. No new entries will be permitted to enter a heat once registration is closed. No heat will be delayed more than 60 seconds waiting for a Scout.
- 17.**Scouts are not permitted to touch a competitor's car under any circumstances.** Scouts are not permitted to touch their own car after it has been registered except when instructed to place the car on the track, return it to the display table, or make a repair. Scouts may be disqualified for touching any car at inappropriate times.
- 18.In the event of a breakdown, Scouts have 5 minutes (under the supervision of a race official) to perform repairs with the assistance of the Pit Crew. The vehicle will need to go through vehicle inspection again.
19. **Scouts must be present on Race Day** in order to compete in any category. (Any Scout who has a Viable Reason May Petition The Race Officials Before April 10, 2013, Each petition will be handled on a individual basis. The decision of the officials is final.
- 20.Decisions of the Inspection Crew and Race Officials are final! Once a decision has been handed down there is no process to change it from initial inspections all the through the race.

Please allow time to arrive early and complete registration and inspection on time – it is not possible to add a car once racing has started. The registration closing times will be enforced.

Awards

Trophies will be awarded for the top three finishers in each class.
Medals will be awarded for all other participants.

Tips

1. Understand the rules – you may not be able to make major changes needed for compliance at the last minute.
2. Make sure that any mold or seam material is removed from wheels (inside and out) and axles.
3. Polish the axles with very fine grit sandpaper, emery paper, or pumice paste.
4. Make sure that the car is as close to the 5-oz. weight limit as possible. (Add weights if necessary). On race day, it is easier to remove excess weight by drilling holes in the bottom of the car than it is to add weight. Weights may not be taped to the external surfaces of the car at the last minute unless they are mag wheel weights. (If anything falls off the car during the race it may not be allowed back on and if it affects the racing of other vehicles the car that lost the part may be penalized, if it does not affect the race the standings will stand.
5. Use a powdered lubricant on the wheels; the lubricants are available at most hobby stores. Work the lubricant into the wheels on initial assembly by spinning them repeatedly.
6. The shape of the car should be streamlined instead of blocky.
7. Do not make the front of the car too pointy (as seen from overhead) – it makes it harder to position against the starting dowel and may delay breaking the finish line beam.
8. Transport your car in a padded box that will protect it if dropped.
9. Place weights towards the back of the car (close to the rear axles) and centered (side to side).
10. Align the wheels so the car rolls straight on a flat surface.
11. The timer uses infrared sensors in each lane at the finish line and a start switch connected to the starting gate. As the starting gate drops the timer is activated – as each car crosses the finish line, a light beam centered on the respective lane stops the timer. It can be critical that the car be wide enough in the front end that it breaks the light beam as the first part of the car crosses the finish line. **A car that comes to a sharp point may be running far enough to the side of its lane that the front of the point will miss the light beam and another, trailing part of the car will break the beam. This can result in slower times – please plan your car accordingly.**

We look forward to have a fun, orderly race this year!

“Gentlemen, start your engines!!!”

Do Your Best and have FUN!

Any questions Please contact the Derby Chairman,
Mike Poelzer
206-618-2008
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Please send entry fees to:

Troop 352 District Pinewood Derby
C/O Mike Poelzer
12241 5th Ave. S.
Seattle, WA 98168

