

# **RULES, REGULATIONS, & PROCEDURES**



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## 1. PURPOSE:

The purpose of this document is to make sure that the participants in the District annual Pinewood Derby Event have as much fun as possible by understanding the rules and regulations of the event. The District's Pinewood Derby is a parent/guardian and youth team event, and is recommended as such by the National Boy Scouts of America. The District Pinewood Derby Committee STRONGLY SUGGESTS that each parent emphasize this idea with your scout. Two things the Pinewood Derby requires each participant to learn are:

- 1) The craft skills necessary to build a car, and
- 2) The rules that must be followed.

Even more important, though, is how we act and behave while participating in the District Pinewood Derby or any other group activity.

This is called sportsmanship.

## Sportsmanship:

The first thing to remember about sportsmanship is that everyone's skills are a little different. You may be good at something like singing or drawing, but not as good at something else like basketball or computers. Parents have different skill levels too. This doesn't mean that you are a good person one time and not good another time. You can always be a good person, whether or not you have good car-building skills. Remember, you and your friends are individuals first and racers second. This idea is often called having respect for others. The second thing to remember is to follow the rules. Without rules, there would be no Pinewood Derby. You will never know if you are really good at doing something unless you follow the rules. This is often called being honest with yourself. The third thing to remember about sportsmanship is that there are winners and losers in every competition. You accept this when you choose to compete. There may be times when you win and feel happy, and times when you lose and feel unhappy. Being a winner is easy, and losing is sometimes hard. If you win, you must not brag or gloat. If you lose, you must not feel jealous or bitter. To be a good sportsman, you must be able to say "I did my best" and be satisfied with the results. You must also be able to appreciate and feel happy for someone else when they run a good race or build a really cool car. Remember, the main "Purpose" of this event is to have FUN! If you have fun and help others to have fun, then we are all winners!

## 2. SCOPE

The scope of this document will be to cover the following major topics:  
General Rules and Regulation Race Day Information, Rules & Regulations

## 3. GENERAL RULES & REGULATIONS

The following Rules and Regulations apply to all Race Events. The intent of the rules is to allow Innovation and Education, while limiting Legislation.

NOTE: Each entrant 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 understand the regulations, the science, and the sportsmanship of pinewood derby racing.

### 3.1. Race Divisions & Eligibility

**Eligible Participant:** In order to design, build and enter a car that is eligible to participate in the District Pinewood Derby, an entrant must be, or related to, a registered member or leader in the District. Pack Rank winners will race in rank divisions as follows:

- i. Tiger Rank / Lions
- ii. Wolf Rank
- iii. Bear Rank
- iv. WEBELOS I
- v. WEBELOS II

Open Class racers can be any BSA registered member, leader, sibling, parent, grandparent, or invited guest.

### 3.2. Essential Materials

a.) All cars entered shall be constructed from the "Official Grand Prix Pinewood Derby Kit" or Other Officially Licensed Kits (referred to below as the kit) as distributed by the local Packs. This includes Wheels and axels.

b.) Additional kits may be purchased from:

Bremerton Scout Shop & Service Center  
10876 NW Myhre Pl. Silverdale, WA 98383

Phone: 360-692-3761



c.) Kits may be purchased elsewhere if they are a BOY SCOUTS OF AMERICA OFFICIAL LICENSEE as specified above.

### 3.3. Attendance

The entrant **MUST** register and race their own car. This means that the Racer must be present at "Inspection and Registration" and the actual race to enter their car into competition. Written exceptions to this rule may be granted by the Race Commissioner prior to the event. Although an entrant's car may be allowed to race if they have been granted an exception, the car will not be allowed to advance to the Grand Finals. Scheduling conflicts due to elective activities in which an entrant must prioritize and choose i.e. sports, parties, school events, will not be accepted as exceptions to this rule.

### 3.4. New Work

- a.) Construction of ALL entries **MUST** have begun **AFTER** last year's Pinewood Derby Races.
- b.) The car must be newly constructed each year.
- c.) Modifications to previous year cars shall not be accepted.

### 3.5. Car Registration and Inspection Date(s) and Time(s)

- a.) Each car must pass a technical inspection before it may compete.
- b.) Registration, Technical Inspection, and Starting Times of cars shall occur on the date(s) and time(s) on the District Race Schedule / Entry Form (to be published at least 2 weeks prior to event). Please arrive early so that you can pass inspection and register your car.
- c.) The car drivers **must**, and their parents/guardian **should**, be at the registration and inspection in case the car is too heavy and weight must be removed or other modifications are necessary to pass the inspection. Exceptions to this rule may be granted by the Race Commissioner prior to the event.
- d.) Single Entry per Person -Only one car may be registered by any person in the Pinewood Derby.

### 3.6. Late Registration and Inspection

- a.) If an entrant fails to register his car by the close of registration, he/she may be unable to race due to the commencement of race heat calculations. Those waiting in line at the close of registration will be allowed to register.
- b.) Cars **MAY NOT** be registered after the close of registration. No exceptions.

### 3.7. Failure to Pass Inspection

- a.) The Inspection Committee shall disqualify cars which do not meet the rules as described herein.

- b.) If a car does not pass inspection, the owner will be informed of the reason his car did not pass.
- c.) Cars which fail the initial inspection may be taken for modifications and brought back no later than the close of registration for final inspection and registration.
- d.) The inspection committee reserves the right to inspect any car after the race, especially cars that place.

### 3.8. Impound

- a.) After a car passes inspection, it will be securely stored (Pits) by the Pinewood Derby Race Committee until race time.
- b.) No car may be altered in any way after it has been registered and impounded unless the car is damaged and in need of repair during racing (See 6.7 & 6.8)

### 3.9. Car Design Rules Interpretation

Interpretations of the rules described within this document are at the sole discretion of the Inspection Committee Judges present during the Registration and Inspection process.

### 3.10. Race-Day Rules Interpretation

**NOTE:** Unsportsmanlike conduct by any participant or spectator will be grounds for expulsion from the competition and the race area.

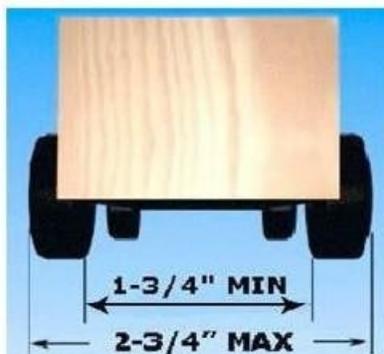
- a.) On Race-Day, the entrant must make all questions of rules interpretations and procedures to the Pinewood Derby Race Commissioner or Race Officials promptly.
- b.) Decisions of Race Officials on questions of rules interpretations and procedure may be appealed to the Pinewood Derby Race Commissioner.
- c.) All decisions of the Pinewood Derby Race Commissioner are final.
- d.) Decisions of Race Officials on questions of fact (i.e. the result of a specific race) may not be appealed beyond the Track Master and/or Finish Line Judges.

## 4. RACE CAR REGULATIONS

### 4.1. Overall Car Specifications

- a.) Maximum Overall Width (outside edge-to-edge of wheels):  $2\frac{3}{4}$ "
- b.) Minimum Width between wheels:  $1\frac{3}{4}$ "
- c.) Wheelbase: The distance between axles can be changed as long as the wheels do not exceed the maximum length.
- d.) Maximum Length: 7".
- e.) Maximum Height: Not to exceed 3".
- f.) Minimum Track Clearance: Bottom clearance between car and track:  $\frac{3}{8}$ ".

**NOTE:** This clearance is to allow the car to go from the sloped portion of the track to the flat portion without dragging.



**Figure 1: Inside & Outside Wheel Specifications**



**Figure 2: Length, Height, Wheelbase, & Clearance Requirements**

- g.) Front of Car: No part of the car can extend beyond the starting post.
- h.) Maximum Weight: Not over 5.00 Ounces

### 4.2. Material

- a.) Race cars shall be constructed for this event from the parts contained in the Official Grand Prix Pinewood Derby Kit (referred to below as the kit) as distributed at the local pack meetings. The wood provided in the kit must be used. The block may be shaped any way that is desired.

- b.) Materials from the kit may be supplemented but not replaced.
- c.) "ADD-ONS" are not restricted as long as they meet with the rules and regulations as specified within this document.
- d.) Special paint, decals, decorations, etc. are allowed as long as they are Cub Scout appropriate.
- e.) Unofficial kits will not be accepted. The "Pine Car" Pre-Cut Design bodies **WILL NOT** be allowed to enter the Race.
- f.) Purchasing of completed cars, modified wheels or axles is **strictly prohibited** and these cars will not be allowed to Race.

### 4.3. Weight

"Weight" is considered to be any material on the car that is not provided in the kit.

- a.) Race cars may weigh no more than five (5.00) ounces total weight as determined on the official scales during the pre-race registration and inspection.
- b.) Weight may be added to the car and will be considered part of the car for purposes of all measurements.
- c.) The car may be hollowed out and built up to the maximum weight by the addition of solid materials, such as wood or metal provided it is securely attached or built into the body chassis.
- d.) All weight must be securely fastened to the car, e.g. by permanent glue, nails or screws, but not by "sticky substances", e.g. tape, or tack spray. The weight **SHALL NOT** be taped on (i.e., masking tape, duct tape, scotch tape...). Heavy duty double back tape such as that used by the ones sold by the B.S.A.
- e.) No liquid weights are permitted inside or attached to the outside of the car body. Weights shall be passive, i.e. non-moveable, non-magnetic, non-electric, and non-sticky.
- f.) Weight may be added or subtracted during the inspection process, but no weights may be added after the car has been registered, inspected and impounded for the race.

**NOTE:** If you are unable to check the weight of your car on the official scale prior to registration, then it would be a good idea to be slightly under weight on any other scale you are using (i.e., Post Office). On registration day, it is easier to add weight than it is to remove excess weight by drilling holes in the bottom of the car.

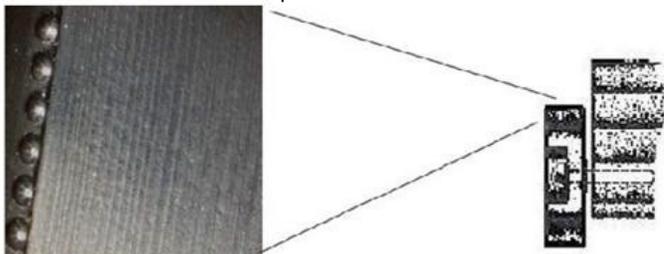
### 4.4. Wheels and Axles

- a.) All cars must have 4 wheels in contact with the track under normal conditions, unaided.
- b.) The wheels shall turn about the axle nails from the official kit. It must be obvious to the judges that the wheels and the nails from the kit are being used.
- c.) Only official B.S.A. wheels and axles may be used as replacements.
- d.) Wheel covers, washers, inserts, sleeves, bushing, and bearings are prohibited.
- e.) The axle nails shall be firmly affixed to the wood of the car body. Axles may be modified or polished. Axles created to appear similar to official axles, or are manufactured from a different raw material and shaped to conform to the dimensions of official B.S.A. NAILS/AXLES are prohibited. Chromed or nickel-plated axles are prohibited. Axles cannot be grooved, or notched.



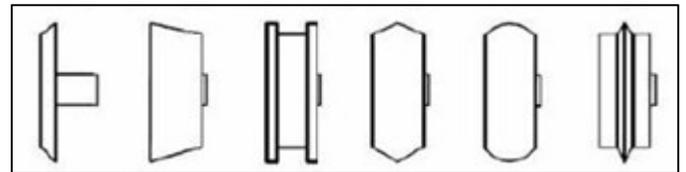
**Figure 3: Examples of Unapproved Axle Types or Modifications**

- f.) Wheels may be modified or sanded to remove molding burrs as long as tread smoothing and polishing does not result in substantially reducing the wheel width from the original kit wheels. The minimum diameter of the wheel must be 1.170 inches. The words B.S.A., Pinewood Derby and some of the original "tread marks" on the wheel face must remain intact, i.e. apparent to the inspector (see pictures below). Wheels may not be machined to a beveled condition, as shown, and the portion of the wheel surface that contacts the track must remain parallel to the axle.



**Beading Must Stay in tact!**

**Figure 4: Approved Truing and Tread Pattern**



**Figure 5: Examples of Unapproved Wheel Modifications**

### 4.5. Size

- a.) Race cars may be no longer than 7 inches, as determined by the official gages during the Registration and Inspection.
- b.) Race cars may be no wider than 2-<sup>3</sup>/<sub>4</sub> (2.75) inches, as determined by the official gages during the Registration and Inspection.

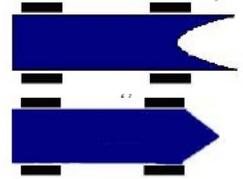
- c.) Underside clearance of at least  $\frac{3}{8}$  (0.375) inches and inside wheel to wheel clearance of at least  $1\frac{3}{4}$  (1.75) inches is recommended, so that the car will run on the race track.
- d.) Adequate height clearance of 3" is the responsibility of the race car builder.

#### 4.6. Lubricants

- a.) Only **DRY GRAPHITE LUBRICATE** is allowed! No oils or greases will be permitted.
- b.) The wheels and axles may be lubricated prior to registration only. Absolutely no excessive lubricants will be allowed. Excessive lubrications must be cleaned prior to inspection.
- c.) Lubricants may not foul the track.
- d.) There will be lubrication available at the race in case wheel or axle repairs are necessary during the race. The replacement part may be re-lubricated under the supervision of a race official.

#### 4.7. Unacceptable Construction

- a.) No loose material of any kind is permitted in or on the car.
- b.) Cars with wet paint will not be accepted.
- c.) Indented noses like below are **prohibited**. Cars like the one pictured right will "stage" further down the track, and thus are not traversing the same course as other cars.
- d.) Very pointed noses like the one pictured right are **prohibited**. Cars like the one pictured below are difficult to stage and may not trip the electronic finish line at the point of crossing. This may result in a disadvantage to the racer.
- e.) Cars may not have anything extending behind the nose of the car that makes contact with the starting gate. This is to stop "jump starts".
- f.) Cars may not have anything on the nose of the car that could give it an advantage at the start, such as tape and adhesives. This includes rounding to a point, this interferes with the starting gate. A nose no narrower than  $\frac{1}{2}$ " is recommended.



#### 4.8. Car Numbering & Name

- a.) Each car will be identified with the number assigned at the time of registration of the cars.
- b.) The car's owner decides where to place the number, it must be placed so that it is visible from above (cars numbering cannot be on the bottom).
- c.) If the car is not numbered correctly at the inspection, the inspector will mark the car appropriately with a permanent marker or label in an area designated by the participant.
- d.) Each car will be required to have a name or description presented at the time of registration.

#### 4.9. Gravity Powered

- a.) The race car may not be constructed or treated in such a way that the track's starting mechanism imparts momentum to the car.
- b.) Cars with sticky substances on the front of the car and protrusions which may catch on the starting pin shall be disqualified.
- c.) The car shall not run on any type of springs.
- d.) The car must be free-wheeling with no starting devices.
- e.) Must be only Gravity Powered.

## 5. RACE DAY RULES, REGULATIONS, AND INFORMATION

Competition will consist of races conducted within each of the specified racing District Divisions. Heat race results will be given for each RANK, and a series of Grand Final heats at the District level. Track officials are responsible for the proper conduct of the races.

#### 5.1. Inspection Gages

**NOTE:** Please stress to all entrants they should be prepared to make adjustments to their cars if necessary.

- a.) The race-day "Inspection Station" will have the official scale and inspection box.
- b.) The check-in equipment used during the Inspection and Registration of racers shall be the official equipment for the race.
- c.) The same 5 oz. Master Weight used for scale calibration in "courtesy" inspections will also be used on race day.

#### 5.2. Race Day Lubrication

Lubrication is to be done prior to inspection. In the interest of fairness, there will be a lubrication table set up at the race in case wheel or axle repairs are necessary during the race. The replacement part may be re-lubricated under the supervision of a race official. Cars may be lubricated between heats if deemed appropriate by the Race Committee based on uneven number of runs by the competing cars, i.e. the Grand Final Heat

### **5.3. Car Handling Responsibility**

- a.) Pit Crew (Car Handlers) shall be responsible for presenting the cars from the Derby Garage(Pits) to the starting line for staging.
- b.) Cars will be staged on the tracks by an adult or a senior member of an assisting Scout Troop under supervision of the "Race Team."

### **5.4. Lane Assignment**

Lane assignments shall be determined by the Racing Officials score sheets used to manage the race.

### **5.5. Car Leaves Lane**

- a.) If, during a race heat, a car leaves its lane but proceeds down the track in a manner that does not interfere with its opponent, then the race will be called normally.
- b.) If the car leaves its lane and interferes with another car, the interfering racer and interfered racer will be given 2 minutes to inspect and/or repair the car(s) with the assistance of his adult partner or Pit Crewmember, re-qualify if necessary and the race will be re- staged and re-run.
- c.) If the same car again leaves it's lane and interferes with another car, that car will be judged with as finishing last in the race. All other cars will be re-staged and re-run without that car.

### **5.6. Car Leaves Track**

- a.) If, during a race heat, a car leaves the track without interfering with its opponent, the racer will be given 2 minutes to inspect and/or repair car with the assistance of his adult partner or Pit Crewmember, re-qualify if necessary and the race will be re-staged and re-run.
- b.) If the same car again leaves the track, that car will be judged with as finishing last in that race. .

### **5.7. Car Repair (Without Fault)**

- a.) If, during the race, a wheel falls off or the car becomes otherwise damaged, then the Scout may, to the best of his ability perform repairs with the assistance of his adult partner or Pit Crewmember.
- b.) The Racer and Pit Crew shall be allowed 5 minutes to perform repairs with the assistance of his adult partner or Pit Crewmember and re-qualify for racing. This time may be extended upon the approval of the Track Master.
- c.) Cars shall be re-inspected after damage repairs are completed for racing in accordance with the Rules above.

### **5.8. Car Repair (With Fault)**

- a.) If a car is damaged due to track fault, or damage caused by another car or person, then the Track Master, at his sole discretion, may allow additional repair assistance and time to the Cub.
- b.) Cars shall be re-inspected after damage repairs are completed for racing in accordance with the Rules above.

### **5.9. Track Fault**

If a car leaves its lane, at his sole discretion, the Track Master may inspect the track and, if a track fault is found which probably caused the initial violation; the Track Master may order the race heat to be rerun after the track is repaired.

### **5.10. Call to Race**

- a.) Competitors will be called by their Car Number and Name prior to each heat.
- b.) When the Car Number is called a Race Official will retrieve the car from the Pits" and present the car to the Starting Team.

### **5.11. Cub Scout District Championship Division**

Three Scouts from each Rank with the fastest cars shall impounded to the "Pits" until the start of the Grand Final Heats.

### **5.12. The Race Area**

Only Race Officials may enter the Track, Pits, and Racer areas until authorized. This rule will be strictly enforced!

### **5.13. Rewards and Recognition**

The most important values in Pinewood Derby competition are parent (guardian) / scout participation, good sportsmanship and learning how to follow rules. The Awards Committee is responsible for recognizing and encouraging these qualities in addition to traditional racing awards. Racers at the District Derby will be recognized as follows:

- a.) Every registered participant will receive a unique Pinewood Derby Item. It could be a Patch, Ribbon, Pin or anything else as determined by the Awards Committee.
- b.) Pine Wood Derby Medals/Trophies will be given to the First thru Third place finishers in each rank. Grand Champion Trophy will be awarded in the Grand Final Heat!
- d.) All Awards will be given after the results of the Grand Final Heat are known.
- e.) Awards giving are based on available budget for the event.

f.) Other awards will be given for car (i.e. Coolest, Most Unique, Oddest, etc....) or youth as recommend by Awards Committee.

## 6. The Race Committee, Volunteers, & Officials

A successful and fun Pinewood Derby is highly dependent on the work of the "Pinewood Derby Committee, Volunteers, and Officials.

### 6.1. Committee Roles & Responsibilities

Availability of volunteers may require individuals holding or being part of multiple teams/positions.

#### a.) Race Commissioner

This individual is responsible for all coordination activities and the Race Committee. Strong organizational, motivational, and leadership skills are required here. The Race Commissioner will typically host a number of meetings in the months prior to the Derby to collect and coordinate the status of all of the other Committee members, and to assign/coordinate additional tasks. During the races, the Race Commissioner will also act as the behind the scenes coordinator of the event, coordinating solutions to all unforeseen 'emergencies' should (when) they arise.

#### b.) Master of Ceremonies

The MC is the Committee 'mouth' during the Derby. Announces all races and racers, all results, and all other general communications during the event. The MC also presents all trophies, certificates, and medals to event winners during and after the Derby.

#### c.) Rules Committee

The Rules Committee is responsible for the creation, approval, and distribution of the "Rules, Regulations, and Procedures". The Rules Committee can consist of all interested Pinewood Derby Committee members. Key players in the process are the Race Commissioner, the Registration Team, and the Track Master Team, even though all committee members can participate.

#### d.) Set Up Team

**Track Master Team** - This team is responsible for the track setup, track repair, and for keeping the track fast and race running smoothly and evenly. This team assembles the track and timers in the weeks before the race, and affects any repairs that might be necessary.

**Decorations Team** - This team is responsible for all Derby decorations during the Registration and Race. This involves decoration acquisition from purchased sources and locating businesses that are willing to donate decorations.

#### e.) Registration & Inspection Team

This team of 2 or more is responsible for the registration and inspection of cars to ensure conformance to the rules. These individuals MUST be very familiar with the car construction rules. This can be a tough job!

#### f.) Race Team

**Race Management** - The Race Management Team is responsible for the planning and management of the race. This includes the planning of the various racing heats, the collecting of race outcomes, and the calculation of the race winners and Grand Final Race participants. This is typically accomplished using a race management software package.

**Staging** - 1 or 2, responsible for staging the cars. These individuals shall assist in the placement of the cars on the track. They shall make sure that the cars are in their proper lanes for the races.

**Finish Line** – 1 or 2, responsible for working the finish-line during the races. This job involves judging car finish order or as a backup for the electronic timers and handing the cars to the appropriate handler upon completion of the race.

**Pit Crew** - Responsible to assist during inspection with getting cars into specifications and during the race to assist with any car repairs that might be necessary. (Brings the tools and materials necessary to make any kind of repairs.)

#### g.) Refreshments Team

These teams' individuals are responsible for the purchase and set-up of snacks during the event. Typically, the District should take in slightly more funds than their refreshments outlay.

#### h.) Cub Escorts / Crowd Control

The Den Leaders/Parents are each responsible for helping their Cubs with race day logistics and behavior. They also help with some of the more difficult lessons that Cubs learn about 'sportsmanship' during the races. Typically volunteers from local Troops will assist with crowd control around the track and staging areas.

#### i.) Cleanup Team

All of our Committee members (and maybe some volunteer parents) help with post-event cleanup.

**Volunteers are always welcome.**

**If interested contact the Race Commissioner or District Executive.**

### Closing Comments

You're set, go out and HAVE FUN and you're guaranteed to be a WINNER! Remember, it's not the winning that's important in this race. It's spending time with your child, teaching skills, building the car together, learning and following the rules, having fun, and on race day helping others to have as much fun as possible!

If we all have fun then we are ALL WINNERS!!