

# **CRANBERRY HARBORS DISTRICT RULES, REGULATIONS & PROCEDURES Revision 2016**

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## 1.0 PURPOSE

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The purpose of this document is to make sure that the participants in the Cranberry Harbors 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 son 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 son.

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

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!

## 2.0 SCOPE

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The scope of this document will be to cover the following major topics:

- General Rules and Regulation
- Race Car Regulations
- Race Day Rules, Regulations and Information
- The Race Committee

## 3.0 GENERAL RULES AND REGULATIONS

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The following Rules and Regulations apply to all race events. The intent of these 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.*

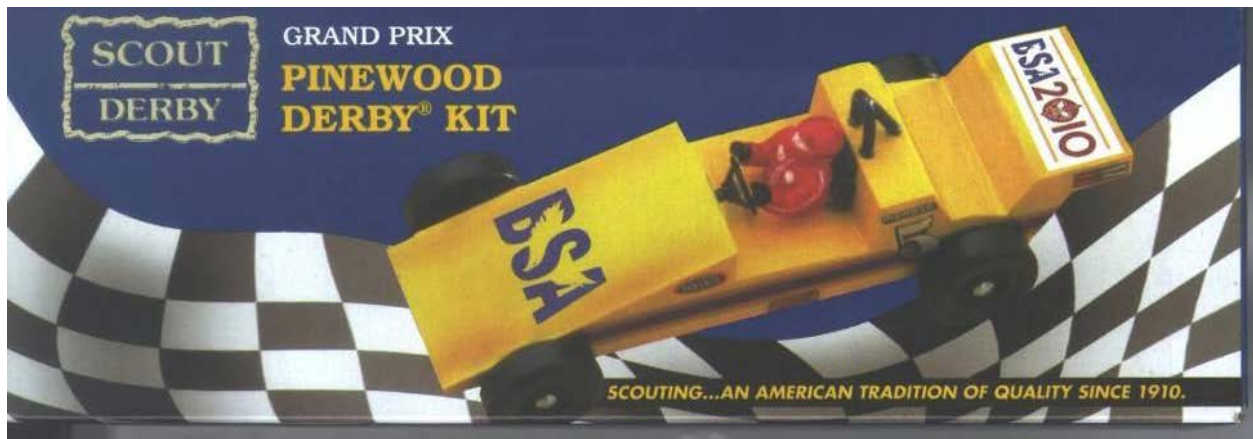
**PARENTS:** please review the rules with your Scout and help him understand the regulations, the science, and the sportsmanship of Pinewood Derby racing.

### 3.1 Race Divisions and Eligibility

In order to design, build and enter a car that is eligible to participate in the District Pinewood Derby, an entrant must be a registered member of a Cub Scout Pack at the time of their unit race in the Cranberry Harbors District. The car entered into the District Pinewood Derby must be the car that you raced in your unit Pinewood Derby.

### 3.2 Essential Materials

All cars entered shall be constructed from the official "Grand Prix Pinewood Derby Kit" (referred to below as the kit) as distributed by the local Packs and Council Scout shops.



Additional kits may be purchased from:

**Old Colony Council**  
2438 Washington St  
Canton, MA 02021

Or

**New England Scout Shop**  
411 Unquity Rd  
Milton, MA 02186

Kits may be purchased elsewhere if they are of the exact type manufactured by the BSA as specified above.

Each scout **MUST** use the block of wood inside the BSA Pinewood Derby Kit. Each car must also use official BSA axles and wheels. See below for more information about Race Car Regulations.

### 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 the 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.

**UNIT LEADERS:** If your unit collects the winning cars to go to the District race after your pack race, the Race Committee highly recommends that you coordinate with your scouts to collect their cars from you before the District race. The Inspection/Registration Team will not accept any cars without the racer present. If any unit drops off cars at the registration table waiting for scouts to pick them up, those cars will not be supervised and the Inspection Team cannot guarantee their safety.

### **3.4 New Work**

Construction of ALL entries MUST have begun AFTER the beginning of this scout program year. The car must be newly constructed each year from an official BSA Pinewood Derby Kit. Modifications to previous year cars WILL NOT be accepted.

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

Each car must pass a technical inspection before it may compete. 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). These times will be based on scout rank. Please arrive early so that you can pass inspection and register your car. Cars will only be inspected at the assigned times by rank.

The scout **must be**, and a parent/guardian **should be**, at the registration and inspection table 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.

Single Entry Per Person - Only one car may be registered by any person in the Pinewood Derby.

Up to twelve cars may be entered per unit. A unit may only register 1-3 Tiger cars, 1-3 Wolf cars, 1-3 Bear cars, and 1-3 Webelos cars (including Webelos Arrow of Light). If your unit races Webelos and Webelos Arrow of Light scouts separately, your unit is responsible for determining which three cars from both of those ranks will be allowed to go to the District race and race in the Webelos race.

### **3.6 Late Registration and Inspection**

If an entrant fails to register his car by the close of registration, he 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.

**Cars MAY NOT be registered after the close of registration. NO EXCEPTIONS!!!** Rank races begin immediately at the end of registration times, and late entries cannot be entered into the computerized schedule once the racing begins.

### **3.7 Failure to Pass Inspection**

The Inspection Committee shall disqualify cars which do not meet the rules as described herein. If a car does not pass inspection, the owner will be informed of the reason his car did not pass. 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.

**PLEASE FOLLOW THE CAR BUILDING REGULATIONS!** Cars will fail inspection if they do not meet the guidelines. The biggest issues seen at inspection are over-sanded, shaped, cantered wheels, and "three-wheelers." If any car is determined to have over-sanded or shaped wheels, they will need to be replaced prior to passing inspection.

**NOTE:** *The inspection committee reserves the right to re-inspect any winning car after the race.*

### **3.8 Impound**

After a car passes inspection, it will be securely stored (impounded) by the Pinewood Derby Race Committee until race time. 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). If the car needs last-minute lubricants, the time to do that is BEFORE registration. NO EXCEPTIONS.

### **3.9 Car Design Rules Interpretation**

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

### **3.10 Race-Day Rules Interpretation**

On race day, the entrant must make all questions of rules interpretations and procedures to the Pinewood Derby Race Commissioner or Race Officials promptly. The decisions of the Race Officials on questions of rules interpretations and procedure may be appealed to the Pinewood Derby Race Commissioner. All decisions of the Pinewood Derby Race Commissioner are final. Decisions of Race Officials on questions of fact (i.e. the result of a specific race) may not be

appealed beyond the Trackmaster and/or Finish Line Judges.

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

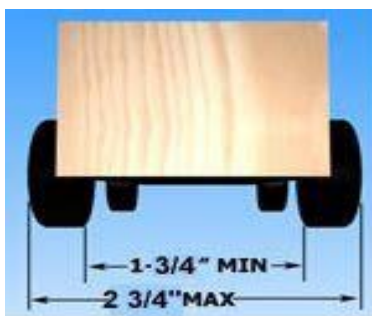
## 4.0 RACE CAR REGULATIONS

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***It is recommended that units who will participate in the District Pinewood Derby race follow the rules, regulations and guidelines herein during their unit race. A winning car at a pack race that does not follow these guidelines will be disqualified.***

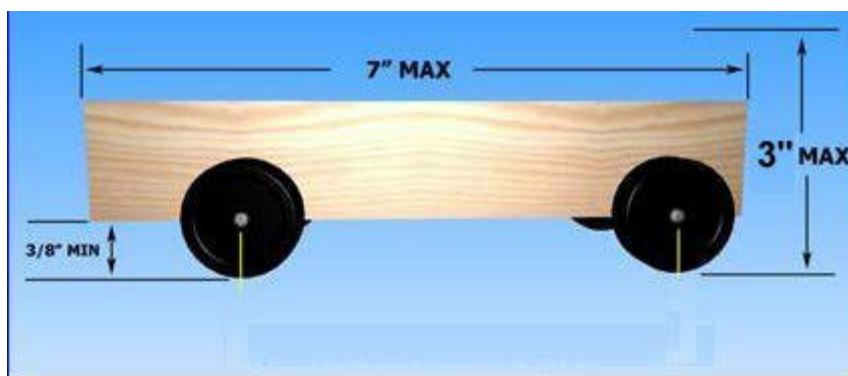
### 4.1 Overall Car Specifications

- A. Maximum Overall Width (outside edge-to-edge of wheels) - 2 3/4"
- B. Minimum Width (between the wheels) - 1-3/4"



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

- 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"



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

- F. Minimum Track Clearance - Bottom clearance between car and track - 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.*
- 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

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 block provided in the kit must be used. The block may be shaped any way that is desired. Materials from the kit may be supplemented but not replaced, with the exceptions of Official BSA Licensed Pinewood Derby Wheels (see below).

"ADD-ONS" are not restricted as long as they meet with the rules and regulations as specified within this document.

Special paint, decals, decorations, etc. are allowed as long as they are Cub Scout appropriate.

Unofficial kits will not be accepted. The "Pine Car" Pre-Cut Design bodies **WILL NOT** be allowed to enter the Race.

Purchasing of completed cars, modified wheels or axles is **strictly prohibited** and these cars will not be allowed to Race. The Inspection Team will have pictures of available pre-built cars for sale online up to the day of the race!

## 4.3 Weight

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

Weight may be added to the car and will be considered part of the car for purposes of all measurements.

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.

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 **MUST NOT** be taped on (i.e., masking tape, duct tape, scotch tape, etc.). Heavy duty double back tape such as that used by the ones sold by the BSA - Stick-On Weights (WW7603) are not allowed.

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.

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:** *The official scale will be available during the registration.*

**HINT:** *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

All cars must have 4 (four) wheels attached and must be official BSA Pinewood Derby wheels.

The wheels shall turn freely about the axle nails from the official kit. **All four wheels must make contact with the race track.** It must be obvious to the judges that the wheels and the nails from the kit are being used.

Only official BSA Pinewood Derby wheels and axles may be used as replacements.

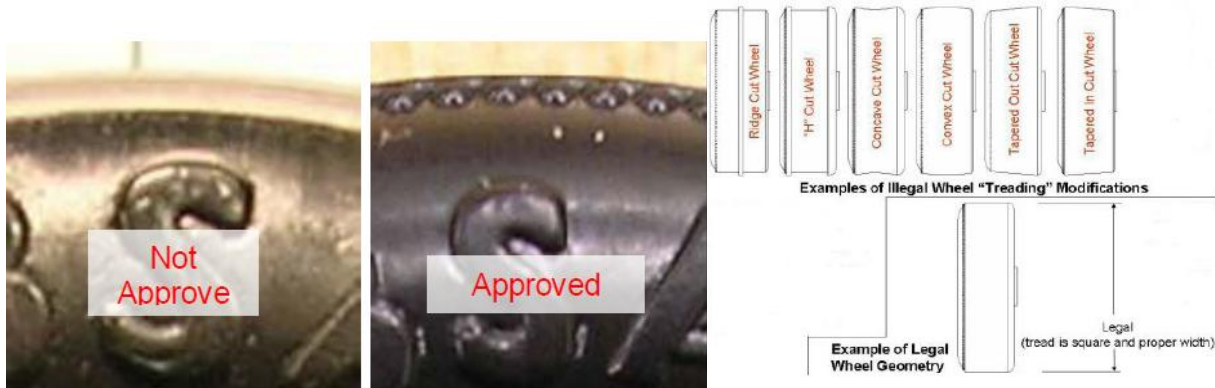
Hubcaps, wheel covers, washers, inserts, sleeves, bushings, bearings, packed materials, or any other materials or devices specifically used to lower the coefficient of friction on, in or around the wheels and/or axles are not allowed.

The axle nails shall be firmly affixed to the wood of the car body. Axles may be de-burred and 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 BSA axles are not allowed. No chromed or nickel-plated axles permitted. **Axles cannot be**

**grooved, or notched.** The Inspection Team may take measurements of the axles to determine if axles have been modified.



Wheels may be sanded and polished 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 and the width of the wheels must be 0.415 inches. The words BSA PINWOOD DERBY and the original beaded "tread marks" on the wheel face must remain intact, and apparent to the inspector (see pictures below). Wheels may not be machined in any way to create an altered shape on the surface of the wheel, including but not limited to a midline ridge, center cut-out, concave or convex cut-out and tapered cut-outs (as shown below). The portion of the wheel surface, from the inside edge to the outside edge, that contacts the track must remain parallel to the axle.



#### 4.5 Lubricants

Only **POWDERED** lubricants can be used on the Pinewood Derby car, i.e. powdered graphite. 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. Lubricants may not foul the track.

Racers may bring lubrication to use 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.

**NO LIQUID LUBRICANTS!**

#### 4.6 Unacceptable Construction

No loose material of any kind is permitted in or on the car. Cars with wet paint will not be accepted.

#### 4.7 Car Numbering and Name

Each car will be identified with a number assigned at the time of registration. The Registration Team will place a numbered sticker on the bottom front of the car so the Race Team knows which end is the front.

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 inspection team.

Each racer can choose to have a name or description to identify their car and must be presented at the time of registration

#### **4.8 Gravity Powered**

All race cars must be gravity powered! The race car may not be constructed or treated in such a way that the track's starting mechanism imparts momentum to the car.

Cars with sticky substances on the front of the car and protrusions which may catch on the starting pin shall be disqualified.

The car shall not run on any type of springs and the car must be free-wheeling with no starting devices.

## **5.0 RACE DAY RULES, REGULATIONS AND INFORMATION**

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Competition will consist of races conducted within each of the specified racing District Divisions based on rank. 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**

The race-day Registration/Inspection Team and the "Pit Stop" area will have the official scale and inspection box. Scales may be accurate to 0.05 ounces.

The check-in equipment used during the Inspection and Registration of racers shall be the official equipment for the race.

The same 5 oz. Master Weight used for scale calibration in pre-race check-in will also be available 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.

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

Car Handlers shall be responsible for presenting the cars from the Derby Garage to the starting line for staging.

Cars will be staged on the tracks by an adult or a senior member of an assisting Boy Scout Troop under supervision of the "Starter Team."

#### **5.4 Lane Assignment**

Lane assignments shall be determined by the racing software used to manage the race. All cars will run a number of heats determined by how many lanes the race track has. For each heat, a racers car will race on each lane once.

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

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.

If a car leaves its lane and interferes with another car, both cars will be given 2 minutes to inspect and/or repair the 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.

If the same car again leaves it's lane and interferes with another car, that car will be judged with a 9.9999 second finish and the race will be re-staged and re-run without that car.

## 5.6 Car Leaves Track

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.

If the same car again leaves the track, that car will be judged with a 9.9999 second finish and the race will be re-staged and re-run without that car.

## 5.7 Car Repair (Without Fault)

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.

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 Trackmaster.

Cars shall be re-inspected after damage repairs are completed for racing in accordance with the Rules above.

## 5.8 Car Repair (With Fault)

If a car is damaged due to track fault, or damage caused by another car or person, then the Trackmaster, at his sole discretion, may allow additional repair assistance and time to the Cub.

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 Trackmaster may inspect the track and, if a track fault is found which probably caused the initial violation, the Trackmaster may order the race heat to be rerun after the track is repaired.

## 5.10 Call to Race

Competitors will be called by their Car Number and Name prior to each heat.

When the Car Number is called an adult will retrieve the car from "the garage" and present the car to the Starting Team.

## 5.11 District Champion

Three Scouts from each Rank with the fastest time shall be impounded until the start of the Grand Final Heats.

Trophies will be awarded for the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> place scouts ***in the Grand Final Heat!***

## 5.12 The Race Area

Only Race Officials may enter the track area. This rule will be strictly enforced!

## 5.13 Rewards and Recognition

The most important values in Pinewood Derby competition are parent (guardian)/son 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 will be recognized as follows:

1. Every registered participant will receive a District Pinewood Derby Patch or Pin.
2. Pinewood Derby Medals/Ribbons/Trophies will be given to the First-Third place finishers ***in each rank.***
3. Pinewood Derby Medals/Ribbons/Trophies will be given to the First-Third place finishers ***in Grand Final Heat.***

All Awards will be given after the results of the Grand Final Heat are known.

## **6.0 The Race Committee**

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A successful and fun Pinewood Derby is highly dependent on the work of the Pinewood Derby Committee, Volunteers, and Officials. The following are the responsibilities of each official or committee:

### **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.

### **Master of Ceremonies**

The MC is the Committee 'mouth' during the Derby. He / she 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.

### **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 Trackmaster Team, even though all committee members can participate.

### **Pit Crew Team**

A team of individuals that comes together during the race to assist with any car repairs that might be necessary should cars 'fly' off of the track, or get dropped, etc. Brings the tools and materials necessary to make any kind of repairs.

### **Trackmaster Team**

This team is responsible for the Track Setup and Repair. This team assembles the track and timers in the weeks before the race, and effects any repairs that might be necessary. During the races the Trackmasters are also responsible for keeping the track fast and race running smoothly and evenly.

### **Registration Team**

Cars be turned in for impound before the Pinewood Derby race begins. There will be a number of individuals responsible for check-in, weighing, and conformance to the rules in effect during this period. These individuals MUST be very familiar with the car construction rules. This can be a 'tough' job!

### **Starting Team**

Two to three individuals who are responsible for staging and starting 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 and also properly placed.

### **Decorations Team**

These individuals are 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.

### **Finish Line Team**

Two to three persons per track are responsible for working the finish-line during the races. This job involves judging car finish order (as a backup for the electronic timers) and handing the cars to the appropriate handler upon completion of the race.

### **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.

### **Crowd Control / Cub Escorts**

Our Den Leaders 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 Boy Scout Volunteers from local Troops will assist with crowd control around the track and staging areas.

### **Race Management Team**

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.

### **Cleanup Team**

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

## **7.0 CLOSING COMMENTS**

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Your 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 boy, teaching him a few 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!!