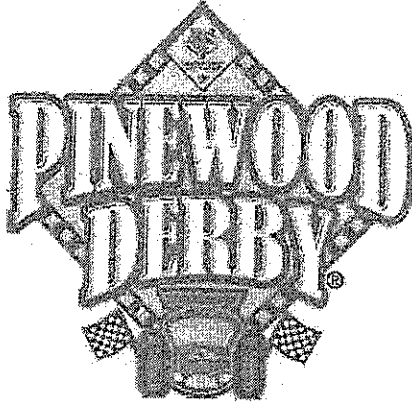


# CASWELL DISTRICT



## Categories and Details of Rules

### GENERAL: (Applies to all Race Day Events)

#### Essential Materials:

All cars entered shall be constructed from the **BSA Official Grand Prix Pinewood Derby Kit** (referred to below as the kit) as sold by the East Carolina Council Scout Shop (Kits may be purchased at other retailers that sell the OFFICIAL BSA KIT, however, they must be the exact type specified above.)

#### Competitor Categories:

Cub Scouts will compete with others in the same "Cub Scout Year." for trophies. In most cases this aligns with their year in school: Tiger = 1<sup>st</sup> grade; Wolf = 2<sup>nd</sup> grade; Bear = 3<sup>rd</sup> grade; 1<sup>st</sup> year Webelos = 4<sup>th</sup> grade; 2<sup>nd</sup> year Webelos = 5<sup>th</sup> grade. In cases that don't match the alignment, reconfirm the information and enter the Cub Scout according to the Cub Scout Year. In cases in which the Cub Scout year is indeterminate, enter the Cub Scout according to his grade in school. If none of these rules apply, contact the event chairman for direction. In these rules, the terms "Cub Scout Year" and "age group" are synonymous (5<sup>th</sup> grade Webelos category includes new 5<sup>th</sup> grade Boy Scouts who participated with their packs during the previous year). Races will however be run "at random" with scouts of all age groups competing against each other. Winners will be chosen by computerized average of each racers time in each age group, Not by Double Elimination!

#### Attendance:

Only the Cub Scout can enter his car. This means that the Cub Scout must be present to enter his car into competition. **Exception:** In case of an Emergency requiring a registered Cub's absence, a Cub from the same pack in the same Cub Scout Year may be substituted on the day of the race. The substitute must race the absent scouts car only. Alternately, the packs second place winner may be allowed to race his car in place of the absent 1<sup>st</sup> place winner. **No Cub Scout may race two cars.**

### **New Work:**

Construction of entries must not have begun before the previous year's District Pinewood Derby Race.

### **Construction:**

Cars must be built by the scout working in conjunction with a parent or other adult. The purpose of this event is to teach the scout new skills and to help build the bond between parent/adult and child. Kit Cars, Hobby Shop Cars, Completed or substantially completed cars may not be purchased from third parties. The car must be built from the materials in the **BSA Official Grand Prix Pinewood Derby Kit**.

### **Single Entry per Car:**

No car may be entered in more than one event. (Speed Race or Best Design)

### **Single Trophy per Scout:**

Since a scout can only enter one category, no scout may win more than one trophy. If a scout wins a trophy in the racing event, he cannot win a trophy in the design event (or vice versa).

## **Speed Race Event**

### **Qualification:**

Each pack may enter one (1) Scout from each Cub Scout Year: Tiger through 2<sup>nd</sup> year Webelos.

**Exception:** In case of an Emergency requiring a registered Cub's absence, a Cub from the same pack in the same Cub Scout Year may be substituted on the day of the race. The substitute must race the absent scout's car only. Alternately, the pack's second place winner may be allowed to race his car in place of the absent 1<sup>st</sup> place winner. **No Cub Scout may race two cars.**

### **INSPECTION:**

The inspection judges at the race day check-in are responsible for the evaluation of each car's adherence to the required technical standards. If a car does not pass inspection, their decision may be appealed to the Track Chairman and the Event Chairman. The Track and Event chairpersons will consult with the inspection team to determine why the car did not pass inspection. After consulting with the judges, The Track and Event chairpersons will confer with the SCOUT, his Cubmaster (if present) and his parent/assistant. A short time may be allowed to make minor changes to the car that would allow the car to pass inspection. If major changes would be required or if changes cannot be made in a timely fashion, and after consultation with all concerned parties the Track and Event Chairpersons shall render a final, binding decision regarding the entry.

### **Technical Standards:**

- 1. Material:** Racecars shall be constructed for this event from the parts contained in the Official Grand Prix Pinewood Derby Kit (Materials from the Derby kit may be supplemented but not replaced).
- 2. Weight:** Racecars may weigh no more than five (5) ounces total weight (141.8 grams) as determined on the official scales during race day check-in. Car weight will be measured in grams, as this provides a more precise measurement.

### Technical Standards Cont.:

3. **Wheels and Axles:** The car shall roll on the wheels from the Derby kit. The wheels shall turn about the axle nails from the Derby kit. The axle nails shall be firmly affixed to the wood of the car body. It must be obvious to the judges that the wheels and the nails from the Official Grand Prix Pinewood Derby Kit are being used. The new colored wheels are Official BSA wheels and therefore are legal for use.
4. **Size:** Racecars may be no longer than 7 inches. The cars may not be wider than 2 3/4 inches or taller than 3 inches as determined by the official gauges during race day check-in. It is recommended that the underside clearance be at least 3/8 inches and inside wheel to wheel clearance be at least 1 3/4 inches so that the car will run on the race track. Adequate clearance is the responsibility of the racecar builder.
5. **Weights and Attachment:** Weight may be added to the car and will be considered part of the car for purposes of all measurements. "Weight" is considered to be any material on the car that is not provided in the kit. Permanent glue, nails or screws must securely fasten all weight to the car, but not by "Sticky substances", e.g. tape, or tack spray. Weights shall be passive, i.e. non-moveable, non-magnetic, non-electric, non-sticky, etc.
6. **Wheels:** Wheel treatment (hub and tread smoothing and polishing) may not result in substantial removal of mass or in reducing the tread (track contact) width from the original kit wheels. No material is to be removed from the inside of the wheels. The words "Official BSA, made in USA and other lettering both inside and outside the wheels shall remain intact and clearly visible to the inspector. Some of the original "tread marks" on the wheel face must be intact, i.e. apparent to the inspector. The wheels used must be from the Official BSA kit! (note: the new colored wheels are Official BSA wheels and are legal for use) Wheels purchased from 3<sup>rd</sup> party sources will not be allowed. Wheels that have been substantially modified will not be allowed. See Inspection Section for details regarding disqualification.
7. **Unacceptable Construction regarding wheels/axles:** The following may NOT be used in conjunction with the wheels or axles: hubcaps, washers, inserts, sleeves, bearings.
8. **Gravity Powered:** The racecar may not be constructed or treated in such a way that the track's starting mechanism imparts momentum to the car. (For instance, this provision disqualifies cars with sticky substances on the front of the car and protrusions, which may catch on the starting pin.)
9. **Lubricants:** Lubricants may not foul the track. Only dry graphite or dry Teflon<sup>®</sup> lubricants will be allowed.

### Conduct of the Races:

Track officials are responsible for the proper conduct of the races. Once the Races are underway, decisions of track officials on questions of rules interpretations and procedure may be appealed to the event chairman. Decisions of track officials on questions of fact may not be appealed beyond the track chairman.

1. **Inspection Gauges:** There will be one weigh-in location. One scale will be used for all races. A gauge will be used to determine correct length and width. Visual inspection will be made to determine any conditions that are not in accordance with technical standards.
2. **Car Impounding:** Once the car has been weighed and passed the required inspection, the SCOUT (not parent/assistant) will place his car on the table provided. At this time no additional improvements (lubrication, additional weight, etc...) will be made to that car before or during the race.

### **Conduct of the Races Continued:**

- 3. Car Handling Responsibility:** Scouts shall be responsible to stage their own cars on the starting line, retrieval of their cars at the finish line (once the heat/race has been called by the track official) and return their cars to the pit after their heat is finished. If, in the opinion of the track chairman, a scout's physical limitations prevent him from fully complying with this requirement, the scout may nominate an assistant of approximately the same age who serves subject to approval of the track chairman. In any case, the scout shall participate up to his limitations.
- 4. Lane Assignment:** Lane assignment for each heat shall be determined by computerized starting brackets.
- 5. Car Repair:** If, during the race, a wheel falls off or the car becomes otherwise damaged, the Cub Scout may then perform repairs to the best of his ability. The Cub Scout may seek advice for repairing the car, but may not receive any physical assistance. If a car is damaged due to track fault or the fault of another car or Cub Scout, then the track chairman may allow repair assistance.
- 6. Car Interference:** If, during a race heat, a car leaves its lane and, in so doing, interferes with another racer, then the car at fault shall be declared to have lost the race heat. (See part 9 for Exception)
- 7. 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 declared "normal". (See part 9 for Exception)
- 8. Car Leaves Track:** If, during a race heat, a car leaves the track without interfering with its opponent, it shall be considered to have ended its heat at that point. (See part 9 for Exception.)
- 9. Track Fault:** If a car leaves its lane, at his sole discretion, the track chairman may inspect the track. If a track fault is found to have caused the initial violation, the track chairman may order the race heat to be rerun, following repair of the track (and car if needed).
- 10. No Finishers:** 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.
- 11. Call to Race:** Competitors will be called to race "Randomly". If a racer leaves the area w/o notification and rejoins the group after the race has started placement in line is at the track chairman's discretion.
- 12. Appeals:** The Cub Scout must make all questions of rules interpretations, procedure and fact to the track officials promptly. A station will be designated for this purpose.

### **The Racing/Track Environment:**

- 1. Track Length and Drop:** The track shall have a racing surface (starting line to finish line distance) of approximately 28 feet or greater with a drop of approximately 4 feet.
- 2. Track Slope:** The track slope shall decrease from approximately 30 degrees at the starting line to approximately 0 degrees at the finish line.

### The Racing/Track Environment Continued:

3. **Lanes:** The track will have at least 2 lanes. Each lane will consist of a straight, smooth strip approximately 1 & 1/2 inches (but no more than 1 & 3/4 inches) wide and approximately 1/4 inches but no more than 3/8 inches thick, centered on a smooth surface no less than 4 inches wide. Each racecar shall straddle the center strip during its heat.
4. **Starting Mechanism:** The "starting line" shall consist of vertical pins, approximately 1/4 inch diameter, extending approximately 1 inch above the track surface and approximately centered in each lane.
5. **Finish Line Sensor Location:** If the track has electronics, the "finish line sensors" shall be in alignment with the corresponding starting line pin and be approximately centered in its lane.
6. **Finish Line Judging:** One impartial finish line judge, assigned by the track chairman, shall be stationed to reset the electronic finish line and aid the scouts in retrieving their cars. In case of electronic finish line problems, a second impartial judge will be requested to call each heat. Both judges must then agree on a winner.
7. **Finish Line Judge Backup:** A backup finish line judge shall be available in case a Judge needs to be excused for any reason. A finish line judge will temporarily excuse himself if he knows that one of the heat contestants is a relative, friend, or member of his pack.
8. **Lane Selection:** If the track has more lanes than needed, the track chairman shall select the most evenly matched lanes for use by the racers. Because tracks frequently change their characteristics due to details of set-up, the determination will be made after the track has been assembled and made ready for racing on race day.
9. **Race Assignment:** Race assignments will be made randomly by computer prior to the start of the race. Racing is timed and will not be double elimination brackets. All racers will run numerous heats throughout the day and times will be averaged by computer programming. Age group winners will be revealed based on highest average time for each age group, after all races have completed.
10. **Finish Line Electronics Sensitivity:** Track Finish Line Electronics, if used, must trigger correctly if a lead pencil is passed 3/4 (0.75) inches above the track surface at a speed of 15 feet per second.
11. **Finish Line Clearance:** Track Finish Line Electronics and other track accessories, if used, must be no closer than 3 inches above the track.

#### **NOTE**

Please note that racing lanes and opponents will be assigned by RANDOM assignment made by the computer program. Racers will race throughout the day against other racers of all age groups as assigned by the computer. As long as we assure that the correct racer is in the correct lane each heat, the system is foolproof.

When all races have completed for the day, The computer will tally each racers times and will then get an average of all race times. Each age group will be revealed with the Third place winner being revealed first, Second place second, and finally, the First place winner will be "Revealed". This will assure that all scouts participating get an equal opportunity to send their car down the track the same number of times, and it will lend an air of mystery and suspense as to who the winners will be! This helps promote the "DO YOUR BEST" attitude of Cub Scouting rather than the I BEAT YOU attitude of recent society.

## BEST DESIGN COMPETITION:

### **Qualification:**

Any Caswell District Cub Scout Pack may have two scouts enter in the design category. Any scout can build and enter a car solely for the design competition without racing. A scout, though, will not be allowed to enter both the design competition and race competition at the District level. Scouts entered should have competed at the Pack level in either design, racing, or both.

**Technical Standards and Conduct of Competition for Design Category:** Technical Standards from the racing rules apply except as follows: The block of wood from the Derby kit, or portions thereof, must be prominent in the design. "ADD-ONS" are not restricted. Special paint, decals, decorations, etc. are allowed. Wheels must be from the Derby kit but the axle nails from the Derby kit need not be used for the design competition.

Cars will be displayed for judging, side by side in assigned spaces on a display table, grouped with their competitors.

The judges will select the best three cars and place 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup>. Judges selected are impartial members of the communities/audience of Caswell District who have been appointed by the Event Chairperson and have no relationship to any of the scouts. There is no age group for the best design competition. All entries compete for the three trophies on a level basis regardless of age group.

## **SUGGESTED TIPS FOR PACKS**

### **BEFORE RACE DAY:**

During the months preceding the District Pinewood Derby, your Pack should have a Pinewood Derby. From this pack competition you will be able to enter your Champion Cub Scout from each "Cub Year" or grade bracket to compete in the District Race. If for some reason that scout is unable to race then the runner-up of that group shall be allowed to take that spot.

The Scout qualifies for the district race, not the Scout's car. He may race the same car that he raced at the Pack's Derby, or he may improve upon it.

Each Pack should bring its Pack flag for display in the race arena. Bring a flag stand for your flag. Each boy should, if at all possible, have on his uniform.

## **RACE DAY CUBMASTER:**

The Cubmaster or appointed adult will obtain his Pack's packet from Derby Officials at the registration Desk. He will take his packet aside and attach the number card that has been assigned to each Scout to the front of the Scout's shirt. There will be a different number card for each car and event entered. -IMPORTANT!! GIVE THE RIGHT NUMBER TO THE PROPER SCOUT. The racing brackets and Best Design judging is done by the number system only. In order to pick up the car after judging, the scout must present the number card to the Judge.

The Cubmaster will then gather his Packs boys together. They will take the scouts entering the design category to the table designated for that event first. The boys will then place their car on the proper table designated by the official.

The Cubmaster will then proceed with his Packs racers to the racing area for race check-in and car inspection.

RE-WEIGH PROGRAM: If a car does not pass inspection there will be an area available where you can make corrections before reporting for Re= & weigh & final inspection.

## **TIPS FOR PARENTS:**

- Know your Scout's Pack Number and Cub Scout Year.
- Arrive early! Arrive well before the end of the check-in/inspection period for your Scout Year.
- Take your Scout to meet with your Race-day Cubmaster at the race area.
- If the race-day Cubmaster is late, the pack's parents who are present should appoint a Registered Pack Leader to be a substitute. The substitute assumes all obligations and responsibilities for assuring that the Pack's Scouts receive their materials and instructions.
- Make sure that your Scout receives his racing number and goes over the rules with the Race-day Cubmaster.
- Help make sure that your Scout gets to their check-in/inspection area early.

**\*\*\*\* SCOUTING ENCOURAGES GOOD SPORTSMANSHIP \*\*\*\***

**CARS WILL BE DISQUALIFIED IF THE SCOUT AND/OR HIS PARENTS DISPLAY  
UNSPORTSMANLIKE CONDUCT AT THE RACE SITE.**

**ONLY THE RACE PARTICIPANTS WILL BE ALLOWED IN THE RACE ZONE ONCE  
THE RACES START**

**NO ADDITIONAL LUBRICANTS MAY BE USED ONCE THE CARS ARE REGISTERED!**

## 2013 CLARIFICATION NOTES ON CURRENT RULES:

### WHEELS:

**Only Official BSA Scout Gran Prix wheels allowed (supplied in kit)**

The new colored wheels will be allowed.

**REMEMBER:** All lettering, both inside and outside, must remain and be visible. The fluting and other BSA markings on the outside wheel area must remain visible. Outer wheel surface may be lightly sanded, shaved, or polished to remove surface imperfections and mold casting burrs, but must not be reshaped in any way to attempt to lighten the wheel, minimize tread contact or alter aerodynamics. Tread surface must be flat and parallel to the wheel bore. Wheel bores may not be filled and re-drilled to achieve better fit with the axle. Cambering or toeing in or out of wheels is not permitted. No rounding of wheel edges allowed. No grooving, H cutting, or V cutting allowed. No altering of stock wheel allowed. Must be four wheels on the car, mounted properly on the car. All four wheels do not have to contact track surface. Each wheel must be mounted on an axle, on the outside of the car, in the vertical position. Each wheel must be attached directly to the car by an axle and spin freely. Staggered wheelbases are not allowed.

### AXLES:

OFFICIAL BSA nail axles only are required. Some polishing to remove burrs is allowed. Must use the axles supplied in the kit.

Axles must not be connected to any device that mechanically alters rotation and spin.

Axles must be mounted in the wood sections of the car. Drilled holes or slots can be used.

No part of the car nor any attachment to the car may be capable of coming into contact with the track other than the wheel(s).

**Please note NEW rules on race organization. Computerized brackets will be utilized rather than the double elimination brackets. Winners will be determined by the average of all times of each heat per participant in each age group.**

HAPPY RACING!