

# BaySea District

Since 1938 serving Scouting & Exploring in Cape May & Cumberland Counties as well as Buena Vista Township & Buena Borough in Atlantic County, Newfield Borough in Gloucester County & Pittsgrove Township in Salem County, &

## **RACE REGISTRATION & PINEWOOD CAR INSPECTION**

Friday April 21, 2017 6:00 pm to 8:00 pm  
Tuckahoe Fire Company  
2170 NJ Route 50 Tuckahoe NJ 08250

Each pack will send one or more Adults to pre-registration with **ALL** the Pack's cars.

Cub Scouts not required for pre-registration

Lubricant may be applied only before inspection.

Bring tools for any car that fails inspection.

## **2017 BAYSEA DISTRICT PINEWOOD CHAMPIONSHIP**

Upper Township Community Center  
Saturday April 22, 2017  
1790 NJ Route 50 Tuckahoe NJ

The first division to race will be Lions & Tigers.

Anticipate each division race taking 40 to 60 minutes.

### **DIVISION RACES WILL TAKE PLACE IN THIS ORDER**

11:00 am Division 1 Lions & Tigers (grades K&1)

12:15 pm Division 2 Wolf (grade 2)

1:30 pm Division 3 Bear (grade 3)

2:45 pm Division 4 Webelos & Arrow of Light (grade 4&5)

**Food will be available for purchase during the races**

# 2017 BaySea District Derby Rules

## “Must read” Page

### *New For 2017*

Cars must be registered by March 25, 2017 using the Pinewood registration form included in these rules. Pack entry fee must be received by March 25, 2017.

Registration fee will be \$30.00 per pack.

Checks are payable to Cub Scout Pack 79

Registration form and fees are sent to:

Brendan Gallagher      6 Richwood Terrace      Marmora NJ 08223  
E-mail: brendangallager5@hotmail.com

Because of possible family schedule conflicts Rules E1, E2 and G4 will be adjusted for families still on spring break vacations only.

Only “New Work” Cars will be allowed to race. Cars must have been built from the date you received them from your pack to the date of your pack Pinewood Derby. Cars from prior years not permitted See G-5

Any Official BSA Wheel is allowed. See G-1 & T-1.

If **ANY** work is to be done to the wheels or axles,  
T-1, T-3, T-6 & T-7

Must be read & fully understood.

Inside lathing and shaving of wheels is **not** allowed.

Parents with any questions about these rules,  
ask your Pack’s Pinewood Committee or Cubmaster they will contact  
the hosting packs

Pack leaders with questions contact the hosting pack.

## EVENT

E-1 **Best of Show**: Any BaySea District Pack may enter one (1) Cub Scout car per division. Packs that have Best of Show events must impound the car after being declared winner of the division. If the Cub Scout is unable to attend the district event, the pack may substitute another scout of the same division.

E-2 **Fastest Car**: Any BaySea District Pack may enter up to three (3) scouts per division. Packs that have races must impound declared winners. If a Cub Scout is unable to attend the district event, the pack may substitute another scout of the same division.

## GENERAL

G-1 **Essential Materials**: All cars entered shall be constructed from the Cub Scout Grand Prix Pinewood Derby Kit sold at Scout Resource Centers. The only exception; Official BSA colored wheels are allowed.

G-2 **Competitor Divisions**: Cub Scouts will compete in Cub Scout Year Divisions.

Division I – K-Kub Lions and Tigers (Grades K&1)

Division II—Wolfs (Grade 2)

Division III – Bears (Grade 3)

Division IV—Webelos & Arrow of Light (grade 4&5)

Any Cub Scout who raced is eligible including those Cubs who recently crossed over into a Boy Scout troop.

G-3 **Competitor Events**: Cub scouts can compete in Best of Show and/or race.

Best of Show – one scout per division per pack (4 cars per pack)

Fastest Car—three scouts per division per pack (12 cars per pack)

G-4 **Attendance**: A designated Cub Scout leader should register all impounded cars for His or Her Pack. The Cub Scout should be present for his car to compete.

G-5 **“New Work”**: Construction of entries must not have begun before the previous BaySea District Derby. Entries should not have participated in any races except for the pack derby race.

G-6 **Impounded Cars**: No car is to be modified after declared a pack winner. Leaders must impound cars that will participate in the BaySea District Derby Event. After the impounded cars enter the District Derby Site, but BEFORE inspection, Lubricant may be applied by a leader, parent or scout, as per the wishes of the Cub Scout.

G-7 **Inspection**: All entries must pass the district inspection. Scout or leader may apply lubricant to axles BEFORE inspection. If a car fails inspection, **small** modifications can be made. Weight may be removed, too large of a car may be cut to size, moving parts may be removed or made non-moving, improper wheels or axles may be replaced. Inspection modifications are only to be carried out if feasible and in a timely manner.

**Note:** Passing inspection can be assured with proper pack race inspections.

# TECHNICAL STANDARDS

## ***Best of Show***

Technical Standards T-1 Materials, T-2 Weight, T-3 Wheels and Axles, and T-4 Size apply.

## ***Fastest Car***

The inspection judges at race day check-in are responsible to evaluate each car's adherence to the technical standards. Their decision may be appealed to the inspection chairman and event chairman, who, after consulting the inspection team, scout and parent, shall render a final decision.

***T-1 Materials:*** Race cars shall be constructed for this event from the parts contained in the Newer Cub Scout Grand Prix Pinewood Derby Kit (Last 7 years) as sold by Scout Resource Centers. No ancient kits. Don't use an old kit found in the attic or garage. Wood block and axels from the kit may be supplemented but not replaced. Wheels can only be replaced with other Official BSA wheels, including colored wheels.

***T-2 Weight:*** Race cars may weigh no more than five (5) ounces (total weight) as determined on the official scales during race day inspection.

***T-3 Wheels and Axles:*** The car shall roll on any Official BSA wheels. BSA colored wheels are allowed. Note: there is a newly designed BSA wheel. Both Official BSA wheels are allowed. Official BSA Wheels have printed on the outside, 'BSA PINEWOOD DERBY', on the inside, 'OFFICIAL BSA, MADE IN USA.' The wheels shall turn about the axle nails from the kit. The axle nails shall be firmly affixed to the wood of the car body. The axle dimensions may not be changed substantially. The outside surface of the axle head (non-contact surface) must not be changed substantially. Wheels cannot extend past the front or rear of the car body.

***T-4 Size:*** Race cars may be no longer than 7 inches, nor wider than 2  $\frac{3}{4}$  (2.75) inches, nor taller than 3 inches, as determined by the official gages during race day inspection. (Underside clearance of at least  $\frac{3}{8}$  (0.375) inches and inside wheel to wheel clearance of at least 1  $\frac{3}{4}$  inches is recommended, so that the car will run on the racetrack. Adequate clearance is the responsibility of the race car builder.)

***T-5 Weights and Attachments:*** 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 by the kit. All weight must be securely fastened to the car by permanent glue, nails, screws or tape; as long as weight is secure. Weights shall be passive, i.e. non-movable, non-magnetic, non-electric, etc.

***T-6 Wheels:*** Wheel treatment (hub and tread smoothing and polishing) may not result in substantial removal of mass nor in reducing the tread (track contact) width from the original kit wheels. Wheel tread surface must be cylindrical. Wheel tread surface must remain in its original shape, flat, 90 degrees from wheel face. Improper shaping of the wheel tread (rounding) is not allowed. Shaving the wheel tread too far, improperly reducing the wheel diameter, is not allowed. The words "Official B.S.A. Made in U.S.A." and other lettering on the wheels shall remain intact and clearly visible to the inspector. Holes are not to be drilled in any part of the wheel. Inside lathing, inside shaving or removing plastic from the inside of wheel or tread surface is not allowed. Do not fill in or cover wheel with anything, such as a sticker or hubcap. Only paint may be used.

***T-7 Unacceptable construction:*** The following may **NOT** be used in conjunction with the wheels and axles: hubcaps, washers, inserts, sleeves, bearings.

**T-8 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. (For instance, this provision disqualifies cars with sticky substances on the front of the car or protrusions which might catch the starting pin.)

**T-9 Staging:** The **ENTIRE** car must stage behind the starting pin. No inverted V fronts. Pointy tips are not allowed, they slip off the starting pins. Car should have at least a 3/8 inch flat tip, centered, in front of car. It might be helpful to race officials, to mark (on the bottom), the front of your vehicle. If car will not stage properly, car may be run backwards. **NOTE:** front of car shapes like a boat bottom, do not stage well.

**T-10 Body:** The car may have no moving parts.

**T-11 Lubricants:** Lubricants must be dry at the time of inspection and racing. The application of some lubricants (graphite) may be limited by race site rules. They may have to be applied off-site.

## **CONDUCT OF COMPETITIONS:**

### **Best of Show**

All cars being evaluated will be on display in the designated impound yard, grouped with their competitors. Cub Scouts will vote for one 'Best of Show' in their division. Best of Show will be awarded to the Cub Scouts' cars that receive the most votes in each division. In case of a tie, tie breaker will be a vote between the tied cars, one vote per present scout, either racing or BOS, in that division.

### **Fastest Car**

Track officials are responsible for the proper conduct of the races. Decisions of the track officials on questions of the rule interpretations and procedures may be appealed to the event chairman. Decisions of track officials on questions of fact may not be appealed beyond the track chairman.

**Scouts AND PARENTS should be familiar with these rules.**

**CR-1 Inspection Gages:** All inspection will be conducted by one team at the special inspection area using scales and gages approved by the chairman. (Please stress this fact to all members of your Pack: They should be prepared to make adjustments to their cars if necessary.)

**CR-2 Impounding:** Once the car has passed inspection and received its number sticker, the official will place the car on the table provided.

**CR-3 Car Handling Responsibility:** Track officials shall be responsible to stage the cars at the starting line by eye, to retrieve the cars at the finish line (after the race has been called) and return the cars to the pit after the heat is finished.

**CR-4 Car Repair:** 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. The scout may seek advice and limited assistance for repairing the car.

**CR-5 Lane Assignment:** Lane assignment for each heat will be determined by Lot or Chart. As determined by Event Committee.

**CR-6 Car Leaves Lane:** If, during a race heat, a car leaves its lane, the heat will be rerun. If any car leaves its lane three times during the race, the car will be disqualified.

**CR-7 Car Leaves Track:** If, during a race heat, a car leaves the track, the heat will be rerun. If any car leaves the track three times during the race, the car will be disqualified.

**Note:** Extremely back heavy cars tend to more easily leave lane or track.

**CR-8 Track Fault:** If a car leaves its lane, at his sole discretion, the track chairman may inspect the track and, if a track fault is found which probably caused the initial violation, then the track chairman may order the race to be rerun after the track is repaired.

**CR-9 No Finishers:** If, during a heat, a car does not finish, a time of 9.99 seconds will be assigned. If the heat winners are determined by place, then a last place finish will be assigned.

**CR-10 Call to Race:** Competitors will be called to race by division.

**CR-11 Appeals:** The Cub Scout must make all questions of rule interpretations, procedure and fact to the track officials promptly.

## **RACING ENVIRONMENT**

**R-1 Track Lanes:** The track will have two or more lanes. Each lane will consist of a straight, smooth wooden or aluminum strip approximately 1 ½ inches, but certainly less than 1 ¾ inches, wide and approximately ¼ inch, but certainly less than 3/8 inch thick, centered on a smooth surface no less than 4 inches wide. Each race car shall straddle such a strip during its heats.

**R-2 Starting Mechanism:** The 'starting line' shall consist of vertical pins of approximately ¼ inch diameter or a flat material no wider than 1 inch, extending at least 1 inch above the track surface and approximately centered in each lane.

**R-3 Timing System:** The timing system will be electronic. The system will have a start and a finish sensor.

**R-4 Finish line Sensor Location:** The "finish line sensors" shall be in alignment with the corresponding starting pin and be approximately centered in the lane.

**R-5 Finish Line Judging:** At least 2 impartial finish line judges, assigned by the track chairman, shall be at station to call each heat. The track's electronic finish line sensor may serve as one of the judges.

**R-6 Finish Line Judge Backup:** Backup finish line judges shall be available in case a judge needs to be excused for any reason.

**R-7 Finish Line Electronics Sensitivity:** Track finish line electronics, if used, must trigger correctly if a non-competing car is run down the track.

**R-8 Finish Line Clearance:** Track finish line electronics and other track accessories, if used, must be no closer than 3 inches above the track.

**R-9 Competition Format:** Competition will either be Lane Rotation, Perfect-N Type or modified Perfect-N Type Chart. As determined by Event Committee.

**R-10 Heats:** Each car will run four times, in different lanes. At least one cut will be made. Culminating in a final round of seven or eight cars. Where each car will run four times, in different lanes. Winners will be determined by total time or points, as per race committee.