

# Cub Scout Pack 254

Boy Scouts of America



## Quick look at January

4th - Den Meetings  
SEAS FFC @  
6:30pm

6th - Recruitment at  
SEAS FFC

9th - Recruitment at  
SEAS FFC

11th - Pack Meeting  
SEAS GYM @  
6:30pm

12th - Pine Wood  
Derby SEAS Gym  
@11:00am

16th Pack  
Committee Meeting  
Online - 9:00pm

18th Den Meetings  
FFC @ 6:30pm then  
to PFD Station #4.

## Oh, Yes, January 2019

Den meetings, Pack meetings, Recruitment and Pinewood Derby

Please check your email and respond for the opportunity to volunteer at the recruitment events at SEAS Faith Formation Center. Dates are Sunday, 6 of January at 9:20, 11:05 and 19:35 and Wednesday the 9th at 17:20 & 18:50.



### GET TRAINED

Youth Protection Training  
is Important!

[scouting.org/training/youth-protection](http://scouting.org/training/youth-protection)



### VOLUNTEER

We need you!

Our pack is successful because  
parents put in time. Make a  
difference.



### POINT-THE-WAY

Learn more about  
scouting!

Create an account  
[My.Scouting.org](http://My.Scouting.org)

## Pinewood Derby

### A block of wood, 4 nails, and 4 plastic tires

If your Scout does not already have a pinewood derby car kit, please contact Cubmaster Justin Junkle as soon as possible to arrange pickup. If you are interested in building additional cars for the Open Class category, official kits are available at the Lyle Gamble Scout Shop at 5600 US Hwy 75 South, in Fairview.

### Schedule for Raceday

- 11:00 Weigh-in Cars
- 11:30 Flag Ceremony & Race Rules
- 11:35 Pot-luck Lunch Line opens
- 12:00 Trophy Class Race
- 13:00 Open Class Race
- 13:30 Scout Championship Race
- 14:00 Awards Ceremony
- 14:30 KP

### Track & Software Setup

Races are run on a 42-foot track with an electronic timer. An official starter (volunteer parent) stages the cars and operates the track. Scheduling and scoring is done by computer software that also displays results of each race. With a four-lane track, it is expected that 30-35 heats will take place in the trophy-class race, with each heat taking about 2 minutes. There will be an announcer, a scoring official, and at least one starter

The software displays “scale speed”, which is not the actual speed but is a calculation of how

fast the car would be going if it were a full-sized race car. Pinewood derby cars are 7 inches long, and are considered to be 1/24 scale. In other words they are approximately 1/24 the size of a real race car. For example, if a pinewood car covers 42 feet in 3 seconds, a full-size car will travel  $42 \times 24 = 1008$  feet in 3 seconds. This represents a scale speed of 229 mph.



### Race Classes

**Trophy Class** – This is the main-event and is open only to 254 Scouts (with Cubmaster’s permission, prospective Pack members can race). A strict set of rules applies to car construction. Scouts race against all ranks, but scoring is done only within ranks. Heats are scheduled using a “perfect-n” rotation, with each car racing once in each lane (a total of 4 runs for each car). Scoring is based on lowest average time, with the worst time thrown out. Because of this, it is theoretically possible to win your division (rank) without actually winning any races, but usually the car with the winning time will also have the most first-place finishes.

**Open Class** - This race is open to everyone associated with the Pack, and rules are less restrictive. Modified wheels and axles are allowed, but the 5oz weight limit is still in place. Scouts can not enter the same car in both events. Derby cars will race only once in each lane (4 times total) keeping the overall event within the time constraints. It is expected that 20 heats will be ran in the Open Class.

**Scout Championship Class** - The four fastest cars will race to win 1st, 2nd and 3rd place trophies. The 1st place winner is the Pack Champion.

## Awards

**Most Excellent Paint and Decal Placement** (Lion/ Tiger Division Only) - awarded to the scout-built car that exemplifies the best paint and/or decal placement.

**Most Sensational Paint and Sanding Job** (Wolf Division Only) - awarded to the scout-built car that exemplifies the best paint design, paint finish and sanding quality.

**Most Phenomenal Eye Catching Workmanship** (Bear Division Only) - awarded to the scout-built car that exemplifies the best dazzling and/or startling workmanship (e.g. Design, Decals, Paint, Sanding, etc)

### Most Outstanding Craftsmanship

(Webelos Only) - awarded to the scout-built car that exemplifies the highest build quality. Factors that are considered for this award include design integrity, finish quality, and attention to detail.

**Best Extraordinary Engineering Feat** (Siblings Only) - awarded to the car that exemplifies the best technical design. Factors that are considered for this award include understanding and application of technical design principles, innovation, and mechanical build execution.

### Best Inventive Design

(All Scouts & Siblings) – awarded to the car that is judged to be the best artistic design. Factors that are considered for this award include concept originality, creativity in design and materials, and overall aesthetics.



## Speed Awards

**Division First Place, Second Place and Third Place** are awarded in each division (Scout rank) There are five divisions: Lion, Tiger, Wolf, Bear, and Webelos

**Overall First Place, Second Place and Third Place** are awarded to the three fastest cars overall. The First Place winner in the Pack Champion.

## The Rules

A. The car must be newly built for the current Cub Scouting year. The car should be substantially built by the Scout. Parental supervision in the construction of the car is encouraged. Older Scouts should do more of the design and construction than younger Scouts.

### TIP

The axles can be filed down to remove burrs and crimp marks.



B. The body of the car must be made from the block of wood provided in an official B.S.A. PD Kit (Cat. No. P1622). The wheels must be placed in the slots provided. If a wheel is broken and a new slot is needed, the slot cannot exceed  $\frac{1}{4}$  of an inch from the original position (the original slots are cut at 4  $\frac{1}{2}$  inches). Wheels may not be designed to ride upon the guide strip of the track. Loose pieces that fall off during a race are not permitted. If the front of the car is designed to gain an unfair advantage at the start or interferes with a fair start, the car will be disqualified.

C. The axles of the car must be from the official B.S.A. PD Kit (Cat. No. P1622) or an official PD wheel replacement kit (Cat. No. P1622A). No one piece axles. Axles must be firmly attached

to the car. The use of a flexible suspension system of any type is prohibited.

D. The wheels of the car must be from the official B.S.A. PD Kit (Cat. No. P1622) or an official PD wheel replacement kit (Cat. No. P1622A). Wheels may not be altered in any way. Mold projection defects on wheel treads may be removed by sanding lightly. The wheels may not be sanded to enhance performance. The decorative dots on the wheel treads may not be removed. If wheel sanding is detected the car will be disqualified. The wheels must be attached to the car with the pins (axles) provided in the kit. No cars will be accepted in the Pinewood Derby where bearings, washers, or spacers are used as part of the wheel assembly. The official wheel width is 0.34".

E. Lubrication - only graphite powder or the new B.S.A. white lube T102 may be used to lubricate wheels. (Warning - other lubricants may damage the plastic wheels and keep them from turning freely.) The Pack does not provide graphite powder lubricants. Once the car is weighed and numbered, it may not be re-lubricated except when the wheel is damaged or becomes dislodged during a race. Graphite must be applied outside of the building.

### TIP

Be prepared to make modifications to your Scout's car at weigh-in especially if it is under or over 5 ounces.

To increase weight you can use adhesive weights, pennies and tape or plumbers putty

To reduce weight, you can drill out some wood or remove any extra putty or weights already applied to your car.

**F.** The total weight of the car may not exceed 5 ounces. Weights must be glued or screwed to body. No loose weights in a hollow cavity that can fall out if car wrecks during the race.

**G.** The maximum width of the car, including wheels, may not exceed 2 ¾ inches. The maximum length of the car may not exceed 7 inches. The motion of the car may not be mechanically aided (motor, springs, rubber bands, etc. are prohibited).

**H.** The judges may disqualify any car that is not in compliance with the spirit of the PD race.

**I.** All metallic attached objects that contain lead must be covered with paint or fingernail polish.

## Need Help?

Visit [pinewoodderbyworkshop.com](http://pinewoodderbyworkshop.com) - “Uncle Pat” has a school bus filled with equipment and experience. The bus is usually stationed at 701 Taylor Dr in Plano, it’s about 6 miles away from SEAS. Cost is 40.50 and you can schedule your time on-line.

## Frequently Asked Questions

**Q:** How much help can I provide my Scout?

**A:** The rule is that Trophy Class cars should be “Scout-built”. Parents are allowed to help and your judgment applies. Younger Scouts need more help than older ones. No one has ever been disqualified for getting too much parental help, but it does tend to defeat the purpose of the event if it ends up being a competition between parents. Pinewood Derby fosters the values of sportsmanship and pride in accomplishment, so help us make sure that this the type of event we have.

The Open Class race is an entirely different race and adult-built or team-built entries are encouraged. Specialized parts and design techniques, are the rule not the exception. Open Class racing allows the Scouts to explore the science a little more deeply and try out new ideas.

**Q:** How much does it cost to participate?

**A:** There is no entry fee for Scouts, and the Pack pays for the event and the awards. The basic pinewood derby car kit cost about \$4, and luckily for us the boys got the kits from the Pack as an early Christmas gift. Most people end up spending a little more on weights, abrasives, paint, axle lube, etc. Although there are lots of specialized tools and supplies available, you should keep in mind that most specialized parts and many construction techniques are not allowed in the main race. Basically you can field a winning car for less than \$10. Hobby Lobby, US Toys, and the Scout Store are good sources in finding Pinewood Derby Accessories for accents. Keep in mind that purchased “pinewood derby” kits from Hobby stores are not allowed and you must use the car kit, wheels and axles provided by BSA (see rules above).

## Do’s and Don’ts for Race Day

DO have fun

DON’T be late on race day

DON’T cross the checkered flag banners surrounding the track. To prevent problems with scoring and possible damage to the track and/or the cars, only authorized personnel are allowed inside the flags.

DON’T touch the cars once they are weighed and checked in. Only designated track officials may touch the cars.