



# 2012 Pack 631 Pinewood Derby Rules

## General Information

There are five different race classes:

**Tiger Class** - this is for Tiger cubs using the standard BSA Derby Kit.

**Wolf Class** - this is for Wolf cubs using the standard BSA Derby Kit.

**Bear Class** - this is for Bear cubs using the standard BSA Derby Kit.

**Webelos I & II Class** - this is for all Webelos cubs using the standard BSA Derby Kit.

**Open Class** - this is for siblings, parents, and anyone who builds a car using the standard BSA Derby Kit.

**Unlimited Class** - this is for any car that breaks any of the standard rules.

This can be a car built by a Scout, parent, or sibling.

1. The car must be boy-made from the Pinewood Derby Kit provided by BSA and Pack 631. Definition of a "boy-made" car: the Scout has actively participated in designing, shaping, assembling, and finishing the object. Parents should be involved in the process but NOT take over the project. This does mean different things at each level of Scouting. For example, a Tiger should not be cutting the car with a bandsaw; but he should be watching the process of cutting his car (wearing safety glasses of course!).

A Webelos Scout should be able to cut, shape, sand, paint, and assemble the wheels of his car (using hand tools) with some guidance (plus a lot of supervision) and a little assistance from an adult. Best way to do this? Build a second car and use it as a teaching tool or example of "how to" for your Scout. He learns by example and you get a car to race in the Open or Unlimited class!

2. Please follow the rules provided. You must use axles, wheels, and body wood provided in the Official Cub Scout Grand Prix Pinewood Derby Kit (except the Unlimited Class). No wheel bearings, washers or bushings, or wet lubricant is allowed. The car shall not ride on any kind or type of springs. The car must be freewheeling, with no starting devices.
3. Kit cars will be allowed for Unlimited Class ONLY.
4. All Scout cars must have been made during the current 2011 - 2012 Scouting/school year.

5. **Axle Slots**

Axle slots provided in the original car body from BSA will be utilized. Moving the slots to lengthen the wheelbase will not be allowed for all ranks. The only exception will be the Unlimited Class.

6. **Wheels**

Wheels used must be from the Official Grand Prix Pinewood Derby Kit. Kit Car wheels will be allowed in the Unlimited Class.

7. **Weight**

The maximum car weight is 5 oz. Heavier cars are faster, so you want yours to be exactly 5 oz. Cars will be weighed on the official scale on race day. Be prepared to trim the weight to 5 oz. on race day. Only the Unlimited Class can weigh more than 5 oz.

8. **Size**

The rules specify the following:

Maximum Length shall not exceed **7 inches.**

Maximum Width will be **2-3/4 inches and be 1-3/4 inches between the wheels.**

Minimum Clearance from the bottom of the car to the track will be **3/8 inch.**

**Do not** add parts that violate these limits. If weights are added underneath the body of the car, they should be slightly imbedded in maintain this clearance.

9. **All cars** must pass these inspection points to qualify for the race. Once your car has been impounded, only Race Officials can handle your car. If a car loses one or more necessary pieces before or during the races, the owner of the car may have **2 minutes** to make repairs under the supervision of a Race Official.

10. If a car leaves the track, runs out of its lane, or interferes with another car, the heat will be run again. If the same car gets into the same trouble on the next run, the contestant may be disqualified.

**KNOTS**



**HELP YOUR CUB SCOUT DO HIS BEST**

## 11. Race Day Procedures

We will be using one track for all racing. An electronic timer will be used for all races. The electronic timer will be used to determine the winners of each heat; finish line judges will be used. All decisions made by the electronic timer and Race Officials are **FINAL**. Adult Race Officials are the only people allowed to touch the cars for any reason.

Once they have been checked in drivers will not be allowed to bring cars to the starting lines or retrieve cars from the finish line. If a car loses one or more necessary pieces before or during racing the driver may have two (2) minutes to make adjustments under the supervision of a Race Official. Anyone caught touching their car after check-in may be disqualified.

Each heat will be announced. All drivers must remain behind the barrier during racing. The starter will make sure the cars are on the track properly and then will start the race. The electronic timer and/or computer software will determine the winners and record the results. **ALL DECISIONS ARE FINAL.**

If a car leaves the track, runs out of its lane, interferes with another car, loses an axle, etc, the heat will be rerun. If the same car gets into trouble on the second run the contestant is disqualified and automatically loses that race. If, on the second run, another car is interfered with, the heat will be run a third time, but without the disqualified car.

## 12. Scoring Procedures

Finish order (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, etc) for each class will be determined using a Lane Rotation Method and Average Elapsed Time as calculated by the race management software (RaceTender).

During Class races (Tigers for example), cars will be lined up in heats and each car will race once in every lane of the track. Times for each run will be recorded and then averaged for a final "score". Finish order will listed based on these averaged times.

*Why do it this way?* Tracks aren't perfect and on a given day some lanes are better. Lane rotation ensures that every car gets a run in the fast lane and in the slow lane. By taking the average of all the times recorded, we ensure that the fastest cars in each Class are recognized and progress to the Overalls.

The order of the Scout Class races will be determined by the Race Officials. At the conclusion of these races, the Open and Unlimited Class races will begin. ALL races will use the same methods of lane rotation.

The top 3 finishers in each **Scout** Class (Tiger, Wolf, Bear, and Webelos) will progress to the Overalls. The Overall heats will follow the same procedures to determine the Overall 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> place finishers for the 2012 Pack 631 Pinewood Derby.