



## Cub Scout Pack 2 2009 Pinewood Derby Information & Rules

**Parents:** *To avoid disappointment and last minute redesign, please read and review the entire information sheet with your Cub. There are a number of important details that need to be observed. Deviation from the posted rules will result in disqualification.*

### GENERAL INFORMATION

<b>Event</b>	2008 Pinewood Derby Weekend
<b>Race Location</b>	The Independence School Gym
<b>Race Dates</b>	Friday March 13 & Saturday March 14, 2009
<b>Registration &amp; Weigh-In</b>	Friday, March 13, 2009 6-8pm
<b>Open Class Race</b>	Friday, March 13, 2009 8 pm – 10pm
<b>Pinewood Derby Car Judging</b>	Saturday, March 14, 2009 Noon-1pm
<b>Pinewood Derby Race</b>	1-3pm
<b>Awards</b>	15 minutes after the Derby is completed
<b>Takedown</b>	To be completed by 4pm

Please make a note that the Registration will be held on March 13<sup>th</sup> only. Arrangements to have your Cub's car registered if you cannot make it to the March 13<sup>th</sup> registration. Please be on-time for all events so that the racing can begin as scheduled.

The Pinewood Derby is a race where model cars built by cubs from kits are raced down a long wooden track and timed with a computer. The top three fastest cars (lowest average time for its four heats) from the Pack will receive trophies. These Scouts are also eligible to enter the district Pinewood Derby, which will be held later in the spring. In addition to the three trophies for top speed, a trophy will be presented to the fastest car per Cub Scout Rank, and a total of 5 trophies based on the appearance of the cars will be awarded. The Cubs will do the judging for the appearance categories just prior to racing on Saturday, March 14th.

Appearance awards will be presented after the Pinewood Derby races following the presentation of the fastest car Awards on Saturday, March 14th.

The Cub Scouts can decide which appearance category to enter:

- **Most Realistic Car**
- **Funniest Car**
- **Car That Looks Like Something Else**
- **Most Patriotic Car**
- **Most Cub Scout Spirit**

## **2009 PINWOOD DERBY RACE RULES**

<p><b>The Pinewood Derby Cars should be built by the Cubs with parental assistance as required for safety (not visa-versa)</b></p>
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### **ENTRY**

1. Each Cub Scout, (including Tiger Cubs and Webelos), may submit in person, as owner, (only) one car entry in each event: Cub Scout Pack 2 2008 – Pinewood Derby, and Cub Scout Pack 2 - 2008 Open Derby. Entry constitutes agreement to these rules.
2. The Race Committee includes the Race Committee Chairman, the Registration Team, Race Officials and judges. Appeals of any Race Committee decisions should be immediately brought to the attention of the Race Committee Chairman, who will consult with the appropriate members, and render a final decision.
3. Each entry must pass inspection, then be registered with the Official Registration Team before it may compete.
4. Each car must pass an inspection prior to racing. Cars will be inspected for the items listed in the Specifications section of these rules. If at registration a car does not pass the inspection, the owner will be informed of the reason for failure, and will be given time within the official weigh-in / inspection time period to make the necessary adjustments. Modifications to correct the cited noncompliance may then be made and the car resubmitted for inspection by returning to the end of the inspection/registration line.
5. The Race Officials will immediately impound a car that has passed inspection until race time. No maintenance, lubrication, alterations or changes, of any kind, to any part of the car will be permitted after the car has passed inspection unless the car is damaged in handling or in the race.
6. The car owner's name and unit will be recorded on the race log and a unique identification number will be placed on the car so it may be visible from the top. Although racers may decorate their car with any racing number, **all identification numbers will be pre-assigned prior to the race.**
7. Once registration is complete, **a Race Official** will move the car to the impound/pit area. All owners and spectators will remain outside the pit and track area at all times, except as directed by a Race Official.
8. Practice runs will not be permitted for those cars entered in the Pinewood Derby race.

Details such as steering wheels and driver are permissible as long as these details do not exceed the maximum length, width and weight specification. Weights may be securely taped or glued to the top or inside of the car to reach the 5-ounce weight limit. Be careful not to attach weights to the bottom of the car because they might get caught on the track and slow the car down. In the past, cars with weights attached to the bottoms have dragged on the track and the car did not finish the race.

Proper weight is critical to having a fast car, and substantially underweight cars may not make it to the finish line. Please be prepared to add or remove weight from your car. Cars will be weighed on a scale, and the results of

the official scale will be final. You can estimate the weight of your car beforehand with a postal scale. **The truly official weight limit is 5 ounces or 141.73 grams.** The official scale only goes to the 100 decimal place so that is the official weight in grams. Any car weighing 141.74 grams or higher will not be eligible to race unless the weight is reduced to 141.73 grams. For the purposes of expediting the start of the race, any car weighing more than 141.00 grams (but less than 141.73 grams) at check-in on the official scale will be immediately accepted and impounded until the start of the race. No further weight adjustments will be permitted on cars weighing between 141.00 and 141.73 grams.

Please make certain that there is nothing (such as weights) hanging on the underside of the car that can scrape on the track and slow the car down. Please also avoid overhangs on the front and rear of the car that can drag when the car goes down the ramp. Finally, please note that there is a front and rear to the car bodies! Look carefully at the distance from the front edge to the front wheels in the instructions enclosed with the cars.

There is a plethora of information and tips available on the Internet regarding the building of and producing Pinewood Derby cars. Feel free to use such information provided that the above rules are not infringed.

## SPECIFICATIONS

### Construction and Materials

1. Pinewood Derby: The car must have been constructed in within the last four months. Open Derby: No car age restrictions.
2. **The car should be substantially built by the Scout.** Parental supervision in the construction of the car is encouraged. The body of the car must be made from the block of wood provided by the Pack, which is in the form of an official B.S.A. Pinewood Derby Kit. The car must be constructed of wood, metal, cardboard, and/or plastic, provided that the original wood block is the dominant material used. 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. No notching allowed.
3. **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  $4\frac{1}{2}''$ ). You may not paint the bottom of the car. If you need to put a sealant coat on the bottom of the car, it must be clear so that any alterations on the bottom of the car are apparent upon visual inspection.
4. No loose material of any kind is permitted in or around the car. Liquids are considered a loose material. The car may be hollowed out and built up to the maximum weight by solid material/metal only, provided it is securely built into the body or chassis.
5. Only official Cub Scout Grand Prix Pinewood Derby **axles** are acceptable. Axles may be polished. The axles of the car must be from the official B.S.A. Pinewood Derby Kit, as supplied by the Pack.
6. Only official Cub Scout Grand Prix Pinewood Derby **wheels** are acceptable. Wheels may be lightly sanded to remove the mold projections on the tread and edges. Wheels that have been beveled, tapered, reduced in diameter or width, grooved or narrowed will not be permitted. The surface of the wheel must be flat. Wheels must show original tread on sides. Wheels may not be designed to ride upon the guide strip of the track.
7. Wheel bearings, wheel covers, washers and bushings are not permitted.
8. The car shall not ride on any type of springs.
9. The car must be freewheeling with no starting devices or other means of propulsion.
10. Only dry powder lubricants, such as graphite, may be used on and around the axles. Lubrication on other parts of the car is cause for disqualification. Lubrication of the axles is permitted only prior to inspection.

## **DIMENSIONS**

1. Width Overall - 2 ¾" maximum
2. Width between wheels - 1 ¾" + 1/16" minimum
3. Length - 7" maximum
4. Height - 4" maximum
5. Bottom Clearance to track - 3/8" minimum

## **WEIGHT**

1. Weight - not greater than 5.00 ounces (141.73 grams)
2. All cars will be weighed using a designated "official scale", at registration, whose reading will be considered final.

## **LOGISTICS**

1. A four-lane track with electronic time will be employed. The event will consist of four heats. Cars will be assigned a different lane in each heat, such that each car will have raced in all four lanes. The individual cumulative totals for the four heats will be used to determine the winners of the event.
2. Each race will be announced. Only "Runners" (Webelos II scouts) will be permitted to handle the cars. The "Runners" will enter the pit area, collect the cars scheduled for the next race, walk them over to and hand them to the "Starter" Race Official at the Starting Line for placement on the race track. Following each race, the "Runners" at the finish line of the track will collect the cars and walk them to the Pit area again for placement in the racing order.
3. The Starter will make sure the cars are on the track properly, ready for the judges and the start of the race.
4. If a car leaves the track, runs out of its lane, interferes with another car, or otherwise fails to pass the electronic timer, the race (heat) shall be rerun. If the same car has trouble on the second run, the car will be disqualified from that heat. If on the second run another car is interfered with, the race will be rerun without the disqualified car. The disqualified car will be assigned a time equal to 9.9 seconds.
5. When the judges indicate, the "Runners" should remove the cars from the track and return it to the pit area.
6. If it is the judges' opinion that the electronic timer has failed to properly perform, the race will be rerun.
7. REPAIRS: Repairs will be made under the supervision of race officials in the impound area.
  - If a car is damaged in a race, or is damaged while preparing to race, the Scout, with one adult partner, will have 2 minutes to repair the car.
  - If the car is not repaired in that time the Scout will forfeit the heat (the disqualified car will be assigned a time equal to 9.9 seconds) and will be allowed to continue repairs until the next heat the Scout is scheduled to race.
  - If at that time the car is unable to race the heat will be run and the Scout will forfeit that heat (the disqualified car will be assigned a time equal to 9.9 seconds).
  - 4. This will continue for the balance of the heats.
  - Once the Scout races the car again, the car is assumed to be track-ready and no further repairs will be allowed unless the car is damaged again.

## 2009 OPEN DERBY RACE RULES

### ENTRY

1. All CUB SCOUT Pack 2 - 2008 PINEWOOD DERBY RACE RULES apply to the Open Derby except as amended herein.
2. Each contestant may enter only one car in the Open Derby.
3. A Canned Food Donation will be assessed per car entered in the Open Derby.
4. A registered Cub Scout must first register a car in the Cub Scout Pack 2 – 2009 Pinewood Derby. He may then register another (different) car in the Open Derby.
5. No car that is to run in this year's Cub Scout Pack 2 - 2008 Pinewood Derby may be run in this year's Open Derby.
6. Cars may be new, from a previous year, or even older.
7. No age or gender requirements for the Open Derby. **ANYONE CAN RACE!**

### PRE RACE CAR CLINIC

Starting in 2005, the Pack created a race car clinic prior to the big weekend that was well received by parents and racers. In previous years, the night of registration would inevitably have some Scouts show up with cars that failed to qualify under the race rules. The night of registration was not the time for the Scouts to learn that all of their efforts were for nothing, as there is precious little time to make changes to the cars on Friday night.

**The racecar clinic will be held on Wednesday, March 11 from 6:30-8:30pm** in one of the downstairs science labs at school. It allows the boys to bring in their completed cars (or ones that are nearly done) to check for weight, specifications, and other criteria.

*If any parent would like to become a member of the Pinewood Derby Committee, please contact Bill Lueking at 302.239.2423. A parent of a Tiger or Wolf Scout would be ideal, as it would provide some continuity by having one person serve for several years. Please give this some consideration.*