

CUB SCOUT PACK 120

OFFICIAL PINWOOD DERBY RULES

2012-2013 RACE SEASON



WEIGH-IN AND IMPOUND NIGHT:
THURSDAY JAN 17TH, 2013 6PM-8PM

RACE NIGHT:
FRIDAY JAN 18TH, 2013 6PM-8PM

**BOTH EVENTS AT MARONEY HALL,
CHRIST THE KING SCHOOL**



PURPOSE AND OBJECTIVES:

The Cub Scout Pinewood Derby has been a part of Cub Scouting since the 1950's. It is an event that fosters a relationship between parents and sons to create a one-of-a-kind car from a basic kit. Racing the cars fosters a competitive spirit, but also provides a learning environment for life skills, the most important one being sportsmanship. Some scouts will win prizes. Some scouts will go home with only their cars that they built and the knowledge that they did their best in building and racing their cars – which is much more valuable than any trophy or medal. They got to spend valuable time with their parent, their peers, and have fun in the process. It is an event that most grown-up scouts look back on with fondness, and some may even still have their cars or photos to show their sons today.

The Pinewood Derby is a parent-son project. Please feel free to give guidance and minimal assistance to your Scout as he builds his Pinewood Derby car. This is a chance for your son to be part of a team (he and you), and to enjoy the spirit of friendly competition with his peers. It is a valuable experience for your Cub Scout to enjoy the satisfaction of building his own car from the kit provided.

This year, we have added a special siblings and parents racing class. Why not let the brothers and sisters of the scouts, as well as interested parents, build and raced a car with their scouts? More information on this class is on Page 7 of these rules.

A special note to all parents and scouts: Together, please read the following article on sportsmanship. While everyone will be trying to win, it's always a good idea to start out by remembering the Cub Scout Motto, "Do Your Best," and some of the basic ideas behind good sportsmanship.



Sportsmanship

Two things the Pinewood Derby requires each participant to learn are: 1) the craft skills necessary to build a car, and 2) the rules that must be followed.

Even more important, though, is how we act and behave while participating in the Pinewood Derby or any other group activity. This is called sportsmanship.

The first thing to remember about sportsmanship is that everyone's skills are a little different. You may be good at something like singing or drawing, but not as good at something else like basketball or computers. Parents have different skill levels, too.

This doesn't mean that you are a good person one time and not good another time. You can always be a good person, whether or not you have good car-building skills. Remember, you and your friends are individuals first and racers second. This idea is called having respect for others.

The second thing to remember is to follow the rules. Without rules, there would be no Pinewood Derby. You will never know if you are really good at doing something unless you follow the rules. This is called being honest.

The third thing to remember about good sportsmanship is that there are winners and losers in every competition. You accept this when you choose to compete. There may be times when you win and feel happy, and times when you lose and feel unhappy. Being a winner is easy, and losing is sometimes hard. If you win, you must not brag or gloat. If you lose, you must not feel jealous or bitter.

To be a good sportsman, you must be able to say "I did my best" and be satisfied with the results. You must also be able to appreciate and feel happy for someone else when they run a good race or build a neat car.



RULES FOR BUILDING AND RACING YOUR CAR

Length, Width and Clearance

- 1) The maximum overall width (including wheels and axles) shall not exceed 2-3/4 inches.
- 2) The minimum width between the wheels shall be 1-3/4 inches so that the car will clear the center guide strip on the track.
- 3) The minimum clearance between the bottom of the car and the track surface shall be 3/8 inch so that the car will clear the center guide strip on the track.
- 4) The maximum overall length shall not exceed 7 inches.
- 5) The wheel-base (distance between the front and rear axles) may not be changed from the provided kit body distance of 4-1/4 inches.

Weight and Appearance

- 1) Weight shall not exceed 5 ounces. The reading of the official scale will be considered final. The car may be hollowed out and built up to the maximum weight by the addition of other materials, provided the material is securely built into the body or firmly affixed to it. No liquids or loose materials of any kind are permitted in or on the car.
- 2) Details such as steering wheel, driver, spoiler, decals, painting and interior details are permissible as long as these details do not exceed the maximum length, width or weight specifications.
- 3) Cars with wet paint will not be accepted.

Body, Wheels and Axles

- 1) Axles and wheels shall be only as provided in the Official Grand Prix Pinewood Derby Kit.
- 2) The car may only have 4 wheels and 4 axles. The wheels and axles must use the two slots already cut into the block of wood and meet the measurement requirements above.
- 3) Wheels may be lightly sanded to smooth out molding imperfections on the tread area. This light sanding is the only modification allowed. Beveling, tapering, thin sanding, wafering or lathe turning of the wheels is prohibited.
- 4) Axles may not be altered in any way except for polishing.
- 5) Wheel bearings, washers, bushings, and hub caps are prohibited.
- 6) The car shall not ride on any type of springs. It must be free-wheeling, with no starting devices or other type of propulsion.

Lubrication

- 1) Only graphite or powdered Teflon "white lube" will be allowed for lubricating the wheels.
- 2) Lubrication is messy! There will not be an opportunity or area on race night to lubricate the car. All lubrication will need to be done on Impound Night, before the car is registered and impounded

Regarding “Official Grand Prix Pinewood Derby Kits”

Every scout in Pack 120 will receive an Official Grand Prix Pinewood Derby Kit, purchased from the Boy Scouts of America. Each kit is constructed and sold to be identical to every other kit. The kit contains a block of wood with the axle slots drilled in it, 4 wheels and 4 axles (nails). It also contains some optional number decals, and instructions. Pack 120 pays for these kits, and the expectation is that every scout will use this kit to build their Pinewood Derby car.

Local stores (Michael's, etc) sell pre-made car kits and accessories that state on the packaging, “Officially Licensed by the Boy Scouts of America”. The most common manufacturers are Revell, Pinewood Pro and Pinecar. Although these kits may state that they are officially licensed by the Boy Scouts of America, it is up to each individual Pack or organization as to whether these kits, bodies, accessories, or any parts are acceptable for racing in their Pinewood Derby.

Pack 120 prefers to have each scout build his car using the kit that the Pack provides. Buying and using what we'll refer to as a “pre-made car kit” takes away much of the experience and spirit of the event. Remember, our objective is to foster a relationship between parents and sons to create a one-of-a-kind car from a basic kit. The pre-made car kits are distinctive, and it is obvious to many when one is brought to the race versus the scouts who build from the kits they were given. The pre-made car kits are a poor substitute for even the most basic design that a cub scout did on their own with a simple block of wood.

Pack 120 encourages every scout to build and decorate a car that meets all of the rules for the weigh-in and race nights. If you do not have the tools/time/know-how to build a car, please speak to your Den Leader and see if a solution can be reached.

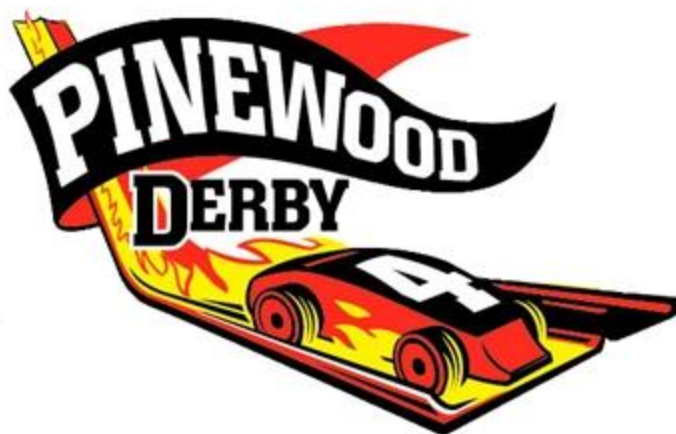
Finally, Pack 120 does not outright prohibit the use of the pre-made car kits. However, if a pre-made car kit is used, it must also comply with every rule outlined within this document. There will be no exceptions. The Inspection Committee will disqualify any car that does not comply with the rules.



CUB SCOUT PACK 120 OFFICIAL PINewood DERBY RULES 2012-2013 RACE SEASON

Ground Rules and Competition

- 1) The race is open to all Cub Scouts registered in this Pack. We also have a special class this year open to the parents and siblings of the Cub Scouts of the Pack.
- 2) Each scout may enter only one car in the competition. Several cars may be constructed but only one may be registered and raced.
- 3) The car must have been built during the current year (the school year in which the Derby is held). Cars that have competed in a previous Derby are not permitted.
- 4) The track has 4 lanes, and up to 4 cars will race at a time. We utilize a computer program that determines when scouts will race and who they race against, and who the winners are. In the case of computer or system failure, we reserve the right to go to a "manual" system to replace the computer system.
- 5) If a car jumps the track, the race will be run again. If the same car jumps the track a second time, that car will automatically lose that race.
- 6) If a car leaves its lane and interferes with another car, the race will be run again. If the same car leaves its lane a second time and interferes with another car, then the interfering car will automatically lose that race.
- 7) If a car becomes damaged and can be repaired in a reasonable amount of time (a few minutes), the race will be run again. If not, the damaged car will automatically lose that race.
- 8) Only race officials and scouts participating in the current race may enter the track area.



CUB SCOUT PACK 120 OFFICIAL PINEWOOD DERBY RULES 2012-2013 RACE SEASON

Inspection, Impound and Registration

- 1) Each car must pass a technical inspection before it may compete. The technical inspection will take place on Impound and Registration Night, which is Thursday, January 17th, 2013, from 6-8pm, at Christ the King Maroney Hall. Race night is Friday, January 18th, 2013, from 6-8pm.
- 2) To enter the race, cars must have passed inspection and be registered by the Final Inspection Deadline at 8pm on Thursday, January 17th, 2013. There will be no exceptions made.
- 3) The Inspection Committee shall disqualify cars which do not meet these rules. If a car does not pass inspection, the owner will be informed of the reason his car did not pass (too long, too heavy, altered wheel base, or the like).
- 4) Cars which fail the initial inspection may be modified for final inspection and registration, but must be completed and registered by 8pm on Thursday. No cars will be allowed to register on Race Night.
- 5) All cars will be impounded on Thursday. This means that the cars will be placed in a secure area and not touched by anyone until race night. Reasonable care will be taken to make sure the cars are secure. A car that is not registered and impounded on Thursday will not be allowed to race on Friday. **THERE WILL BE NO EXCEPTIONS TO THIS RULE, SO MAKE PLANS FOR THE CAR TO BE AT THE IMPOUND NIGHT ON THURSDAY JANUARY 17TH, 2013 BETWEEN 6PM AND 8PM.**
- 6) No car may be altered in any way after it has been registered. Damage repair shall be allowed during the Derby only if it does not delay the race, but no modifications shall be allowed.
- 7) After passing inspection, no car shall be re-inspected unless repaired after damage in handling or in a race. Until the Pinewood Derby has concluded, only Scouts and the Pit Crew will be able to handle the cars, and only for the purpose of racing. Otherwise, they will be in a designated "impound" area where handling or touching the cars is prohibited.
- 8) Unsportsmanlike conduct by any participant or spectator during the technical inspection on Thursday or the race on Friday is grounds for disqualification and/or expulsion from the competition and/or the race area.

Awards and Recognition

- 1) The most important values in Pinewood Derby competition are parent/son participation, good sportsmanship and learning how to follow rules. The Awards Committee is responsible for recognizing and encouraging these qualities in addition to traditional racing awards.
- 2) Awards will be given to the first, second and third-place finishers in each division.
- 3) Additional awards will be made at the discretion of the Awards Committee. Not all Scouts may receive an award. All Scouts will leave with their custom built car and hopefully a sense of accomplishment. We also hope they had fun, regardless of whether or not they won an award.



Racing Format

There will be two rounds of racing. The first round is a preliminary round, with all participants from all classes in a pool where the computer selects 4 cars at a time to race each other in each heat. Each scout will race 4 times in this format. The computer will be recording the race times of each car, and these race times will determine who will race in the second round.

The second round is a playoff format, where the top scout cars (no special class cars) in terms of time during the first round will be put in a single elimination tournament. This will determine the top 3 overall cars of the night. There will also be a playoff of the top cars in each class (Tigers, Wolves, Bears, Webelos and Special). This will be a one-race playoff, with the participants again chosen from the best times of the first round of racing. The top 3 overall winners will not be eligible to compete for the top cars in each class.

We will be taking a 15 minute intermission between the first and second round to determine the racers for the playoffs.

NOTE TO PARENTS: We have scheduled 2 hours for this event, and we will do our best to start and end the event on time. Please plan accordingly. This can be a long time for younger kids who are not racing. For safety purposes we ask that non-participants are not running around and screaming. Participants need to be listening and waiting for their turn to race. Also, all kids need to stay off the stage area at all times. They also need to stay out of the racing area unless they are racing their car. Please respects the racers and the volunteers managing the race by always listening and following directions. Thank you!



Special Siblings/Parents Class



For those who are interested, we are having a special class for siblings and parents of the cub scouts to compete in. Only parents, brothers and sisters of the Cub Scouts of Pack 120 are eligible to compete, and only one car per participant. Parents and siblings will need to purchase their own car kits (Mike's Hobbies usually has them, or you can get them online at www.scoutstuff.com). You need to follow all of the rules in this document to be able to compete. Please note that this means you must have your car inspected and impounded on Thursday January 17th to be eligible to race on Friday the 18th. Your cars will race alongside the scouts' cars in the preliminary round, and the top 4 cars in this special class will have a one-race playoff to determine the overall winners. Have fun!!



CUB SCOUT PACK 120 PINEWOOD DERBY - TIPS

Construction and Racing Tips

1. The boys and adult should make the car together as a project! It is not the intent that the parent show the Scout the garage door then walk away; nor is it the intent that the boy play video games while the adult cuts and sands. Parents should shape with the power tools and then direct the rest of the action while showing the boy each step in building a car.
2. Have fun! After all, this is what it is all about.
3. Know the rules. Being disqualified can be very embarrassing.
4. Safety first. Let's not lose any fingers.

Design Tips

1. Have your son draw a design on paper then cut it out and use it as a template. Graph paper can make this easier. Draw a side and top view on the paper by tracing around the block of wood.
2. Keep the car a full seven inches. It has to do with the physics of velocity and length of travel of the weights.
3. Use the full 2 3/4 inches (outside wheel to outside wheel) that the rules give you. This will allow the wheels to travel farther before hitting the center strip.
4. It may be a good idea to leave a lot of wood in the back to put in the weights.
5. Some people like to use the groove closest to the end of the block of wood as the rear axle.
6. Do not make the front of the car pointed. It is hard to set up against the starting dowels.
7. Use your imagination. Be creative. Shape has the least to do with winning. A beaver driving a log or even a pickup truck is more interesting than a wedge and will be just as fast. The aerodynamics of a small block of wood doesn't mean much in thirty feet. So use your imagination.

Lubrication Tips

1. Use graphite only. Oil damages the paint and collects dust. Some people say that graphite works better than the new white Teflon.
2. You can break in the wheels by spinning them with lots of graphite.
3. You can put a small drop of white glue where the axle goes into the car body and top it with powdered graphite. That causes less friction if the wheel should rub against the car body.
4. You can give the axles a good polish, then dump the axles and wheels in a ziplock bag with some graphite and shake them around prior to the race. That way the wheels and axles are as slick as can be.

