

Pack 32 - 2015 Pinewood Derby

What is the Pinewood Derby?

The Pinewood Derby is a chance for scouts to design and build their own cars to race against the other boys in the pack in the big race. Each scout will receive a Pinewood Derby kit containing the block of wood with pre-cut axle slots, 4 wheels, 4 nails (axles), and sometimes some decals as well. These are the building blocks for your car, although you can certainly add lots of cool stuff to make it your own – the more creative the better!!

Four cars are raced down a ramp at a time (a heat), and each car competes in 4 heats, each time in a different lane. The time for each car, start to finish, is timed electronically. After all heats have been run, the 4 cars with the lowest total times compete for the top spot in 4 finalist heats. The top 4 finalists in the pack are invited to attend the Council/District Runoffs as well.

But...cars are not judged on speed alone! Before racing begins, the scouts will vote for the best cars in several categories, including most creative, favorite, and fastest looking.

Rules for Car Construction

Please see the following link (<http://www.nashuavalleybsa.org/cm/images/activities/2015PWDGuide.pdf>) for all applicable rules. It is very important to follow these rules and not to seek exceptions so we can keep this fair for all scouts. MAKE SURE YOU REVIEW THESE RULES!! If you have any questions, please contact me, and I will share the response with the pack.

The back of this sheet contains some of the most important rules.

Note to Parents

As much as possible, this is intended to be an event where the scout and parents work together. Some cars will be entirely scout made (and parent supervised) while most cars will have elements where the scout takes the lead (idea, painting, gluing, non power tool shaping) and some where the parent may need to offer more assistance (use of power tools, etc.).

Tips

There are loads and loads of ideas online. You can also get supplies at the Nashua Valley Council Store in Lancaster, as well as some at the West Concord Five and Dime (just make sure it's all legal). Also note that the post offices have scales you can use to weight the cars if you like. In the end, what counts is the official scale at the weigh in, but it is well calibrated. We will have tools to help you adjust the weight at the weigh-in, or you can bring your own.

Timing

The Pinewood Derby will take place on Saturday, March 7th at the Gates Cafetorium, with voting starting at 12:30pm, and the races starting at 1pm. Check-in of all cars will be the previous night (March 6th) from 6:30-8:00pm, at the Gates. **It is important that all cars are submitted during the check in time on Friday night**, so that we can ensure smooth running of the races on Saturday.

Volunteers

We are still in need of additional volunteers for both the night of the check-in, and the help run the event on race day. Please contact me if you can help out one (or ideally both) of those days.

Questions

If you have any questions please contact:

Michael Metzger, mjmetzger@gmail.com 978-266-2994

Rule Summary

(see <http://www.nashuavalleybsa.org/cm/images/activities/NVCPWDRules2014.pdf> for official rules)

Car Specification

- **Weight:** Not to exceed 5.0 ounces.
- **Width:** Not to exceed 2 ¼ inches, including wheels and axles
- **Length:** Not to exceed 7 inches
- **Height:** Must fit under the timing gate. Less than 6 inches.
- **Wheelbase:** the wheel base (distance between the front and rear axles) may NOT be changed. Use the provided grooves.

Clearance

- **Center Rail Width:** Must clear center guide rails, no less than 1 ¾ inches.
- **Bottom:** No less than 3/8 inch from the the bottom of the car, to the bottom of the wheels.
- **Front End:** The Front end of the car will rest against a short starting pin. The front bottom of the car which rests against this pin cannot be higher than 1 inch above the track. The width of the front of the car must be at least ½ inch wide, to rest against the pin. No part of the car may protrude in front of the starting peg.

Prohibited Items

- No springs, motors, starting devices, or propellants.
- No electronics that might interfere with the race electronics.
- No liquids, oil, powders, or lubrication, other than dry axle lubrication.
- No bearings, bushings, washers, sleeves, hubcaps or inserts attached to or in contact with the axle, body or wheels.
- No magnets.

Tips for First Time Builders

- **Do add weight to your car**
 - All other things being equal, the heavier the car, the faster it will go. You want to be close to the 5 oz weight limit.
- **Don't add the weights to the bottom**
 - The cars will race on a track with strip of wood down the middle, to keep each car in its lane. Weights that stick out of the bottom of the car will hit this wood, slowing down the car and preventing it from reaching the end of the track. For safety, don't have anything protrude out the bottom of the car.
- **Use Graphite on the wheels**
 - Powdered graphite, used for lubricating sticky locks can be found at Ace Hardware in town, and many other locations. A small tube will last you through many pinewood derbies, costs less than \$5, and will dramatically increase the speed of your car.
- **Work together!**
 - Remember that the Pinewood Derby car is to be made by the scout, with the parent assisting.