

Pinewood Derby Tips

Provided by Northeast Iowa Council, STEM Pack 99

www.scoutsiowa.org

563-556-4343

Due to COVID-19 and challenges of getting together in groups in 2021, we are providing these Pinewood Derby tips to help your Pack and families in place of our usual Pinewood Derby Workshop. The purpose of this is to provide guidance and resources to help you in designing and building a Pinewood Derby car for Cub Scouts, based on the science behind these cars.

If you would just like help with either design, building or both, you may contact Mark Bodensteiner, STEM Pack 99 Cubmaster, who may be able to set up a short visit to help you cut out your block of wood using his tools and shop. He can be reached at email: bckpcker@yousq.net or text to 563-495-4277.

Our Northeast Iowa Council Pinewood Derby Rules are on next page. Please use the Official Pinewood Derby Car Kit to start, which are available at the scout office (see below).

Resources to help you plan a Pinewood Derby or build a car:

[Get ready for Pinewood Derby with these virtual events](#)

- [How to host a Pinewood Derby event safely](#)
- [How to Host a Virtual Pinewood Derby \(video\)](#)
- [How to use science to build a fast car](#) (Note: we recommend only the first 4-5 minutes of this about 10 min video for young scouts to get basics.)
- [Shop for car gear from the Scout Shop](#)
- [A parent helped build that Pinewood Derby car? Yes, that's the point](#)
- [Six easy steps to planning the ultimate Pinewood Derby](#)

Science of the Pinewood Derby – for tips on how to build a fast car, see the video listed above (2nd bullet). It is very important to know that 5 ounces is the max weight the car can be but you want to get it as close to that weight as possible. Weights can be purchased at the scout shop or store or you can use things at home such as coins or washers for weight. Our general tip is: The majority of the weight should be just in front of the rear axle. This is the most important factor in gaining speed for your car.

Designing - Scouts may want to use paper, photos of pinewood derby car designs, pencils, colors, etc to draft what they want to do before marking up their block for cutting. The shape you choose to cut it into has very minimal impact on your speed, so let your scout be creative!

Cutting & Sanding - Scouts should design their car and make marks on the wood block where they think cuts need to be done and give to an adult if they are using power saws or tools to do the cutting. Due to Scout regulations (The Guide to Safe Scouting), only adults can use the power equipment to do the cutting and sanding. Scouts can use sandpaper by hand to do finishing work or hand saws if age appropriate and parent approved.

Axles – if you want to maximize speed, consider sanding your axles to get the smoothest finish possible.

We hope this helps to make your Pinewood Derby experience more successful.

The local Scout Office in Dubuque, IA has Pinewood Derby kits, weights, colored wheels, and other supplies available for purchase or order if you choose. Contact them at 563-556-4343 or email Nettie.Elliott@scouting.org.

Good luck at your Pinewood Derby!