

One of the most common questions with the Pinewood Derby is how much you should help your kid build it.

The answer is that **your child should do as much as he or she can**. Let them do more than you think they can do.

As a rule of thumb you can expect Tigers to do 20% of the work, Wolves 40%, Bears 60%, Webelos 80%, and Arrow of Light 100%.

We hope you'll have a good time with your kid building the car and that your kid will have fun competing. Remember that they'll be more proud of the wobbly car covered in stickers that they made by themselves than by a smooth slick racer they didn't get to touch. Also please remember that it's obvious when a car is built by a grownup instead of by the kid. Don't be THAT dad or THAT mom!

Here's a great website for Pinewood Derby car advice:

<https://web.archive.org/web/20130530111858/http://pinewood.fateback.com/>

Most other websites are intimidating with their ninja tips. That site has the right attitude and tells you how to make a pretty good car, which is actually pretty easy once you drop all of your adult preconceptions about how the car should look.

Once you've read that site, you can skim this page too:

<http://www.boyscouttrail.com/library/pinewood-derby.asp>

On a most simple level, all your kid needs to do is glue some weight onto the block, cover the block with stickers or drawings, then tap the wheels onto the block.

Most kids cut the block into a basic car shape, sand it smooth, and paint it. Beyond that, there are any number of things you can do to make your car look better and race faster.

The two most important factors are weight and wheels.

Weight: Heavier is better. 142 grams (5 oz) is the maximum. The weight works better if it's placed towards the rear. I'm told that an ideal car will balance on a pencil placed just in front of the rear wheels.

Wheels: If you look at a car from the front, the wheels should appear straight. If you push it gently on a table, it should roll straight. You should just about be able to fit a credit card between the wheel and the body. Axle nails may be filed to remove the burrs, and dry graphite

powder may be used for lubrication. A great wheel will spin for about 20 seconds after being flicked.

A common question is which way is supposed to be the front. If you look at the block, you can see the axle holes are closer to the end of the block on one side. That side is intended to be the front, but your kid can do it whatever way they like.

To build a standard car you will need:

- a saw
- coarse and fine sandpaper
- paint, stickers, or other decorations
- weights to bring your car up to 5 oz.
- glue or screws to attach the weights to your car
- a hammer to attach the wheels
- dry graphite to lubricate the wheels (optional)

Sandpaper can be purchased at any hardware store.

You can use whatever paint you have around the house. Most people will use model paint from a craft shop like Michael's in Westlake Shopping Center. I suggest one color of spray paint and one or two contrasting colors for your kid to add details by hand. To paint the car you can lay out some newspaper, rest the car on a couple of pencils, and spray lightly around all sides. You don't have to paint the bottom.

Heavier cars go faster, so you will want to add weight. Remember that the limit is 5 oz. (141.75 grams). One good way to add weight is to use BB's glued on with Titebond wood glue. Remember that Titebond takes a day to dry. Nickel coins make good weights because they are cheap and easy to find. One nickel is exactly 5 grams. You'll likely need about 20 nickels to get to the maximum weight. Fishing weights are also good because you can easily adjust the amount you add. You can get fishing weights at sporting goods stores. Another common but more expensive option is to buy weights specifically designed for Pinewood Derby cars, which you can find at craft stores like Michael's. Or really you can just screw on any old bolts, washers, and other hardware you have lying around the house.

As you make the car please keep in mind the goal: have fun with your child, and teach them to always do their best!

REMINDERS

Help your kid do his or her best.

Building a car is a journey. Sit down with your kid, talk about the design, talk about making the car fast. (Pro tip: it's all about the wheels and the weight.)

Remember that kids have a short attention span. Break up the tasks: design, cut, paint, build, add weight, paint.

Don't be *that* dad or *that* mom!