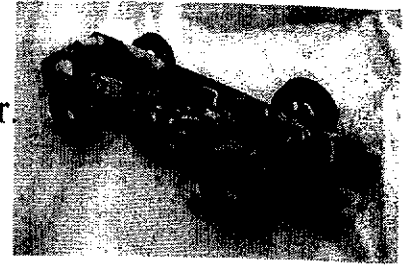


How to build YOUR Pinewood Derby Car.

CONSTRUCTION SUGGESTIONS AND HINTS



NOTE: Boy Scouts of America strongly urges the participation of both parents/guardians and Cub Scout in constructing the car. **The Scout should be allowed to do as much of the construction as possible and All of the painting.**

1. You are the builder of the car. You may have help from your dad, mom, brother, sister, grandpa, grandma, uncle, neighbor, or anyone you want. If all you would like to do is paint the block pink with poke-a-dots and stick the wheels on then that is the car you should enter. It is ok to ask for help with a saw or other tool.
2. You must use the official kit and the parts that came with it. Don't have your dad go out and buy one that is already in the shape of a race car (make the racecar yourself).
3. The car will be checked that you used the official parts. If you have not used the parts from the kit you will not be allowed to race.
4. The wheels and axles may be polished but need to be close to the size they were before polishing.
5. Use a dry lubricant on the axles before check in.
6. You must enter your own car during check in on race day.

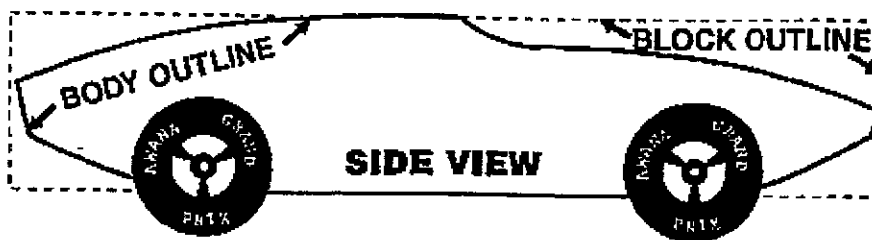


Entering the pinewood derby helps you learn how to build a car, follow the rules for racing, and how to act and behave while participating. Every car will be different; some will be fast and some will be slow. This is because we are all different and building a car may not be what you are best at, but the Cub Scout motto is to "DO YOUR BEST".

1. Draw the car design on paper first. You may select a specific design from a magazine, brochure, or newspaper, or come up with your own. Cars may be built to look like real race cars or another creative design. Use your imagination! Some examples of race cars and other designs are shown below.



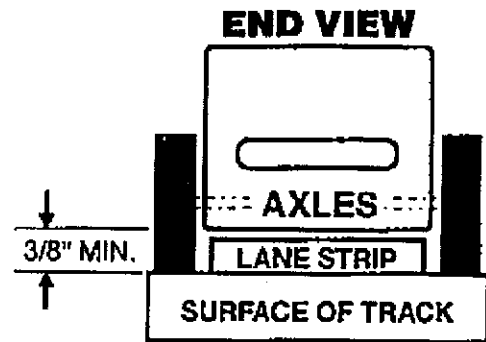
2. Outline your design on the wood block as shown. Rough cut the shape using a coping saw, jig saw, band saw, knife, or power sander (adult supervision is strongly recommended for this step!). Using successively finer grades of sandpaper, give the car its final shape and then smooth the surface. Before painting, add a couple coats of sanding sealer, let it dry, and sand with very fine sandpaper.



3. Cars should be carefully painted to compete for design awards. The quality of the car's finish may be determined by the number of paint coats and proper drying time between coats (hint: don't wait until the day before the race to paint your car).

4. Our track is designed so that the lane strips keep the cars in their proper lanes. Use only the wheels and axles furnished in the kit. The axles may be polished, if desired. The tread surface of the wheels may be lightly sanded, if desired, but must not be modified to a different shape (e.g., they may not be cut down to be narrower or beveled).

Be careful when sanding wheels as too much friction can melt the plastic. Slots for the axles have been pre-cut in the wood block. Make sure the distance between the wheels is at least 1 3/4" and the bottom of the car is at least 3/8" above the ground so it will not rub on the lane strip and slow the car. Insert the axles into the wheels and tap them into the slots or holes. Do not tap in too far or the wheel will bind on the car body.



5. Winning speed cars usually weigh the maximum 5 ounces. Once cars are carved, they usually weigh only 2 to 3 ounces (make sure you include wheels and axles). Weight may be added by drilling a hole in the bottom of the car and pouring in melted metal (NOT lead) (UNDER ADULT SUPERVISION!) or by securely attaching commercially purchased or homemade weights with screws or glue (stay within size limits, including ground clearance). No loose or moving weights are allowed. If a car is a little too heavy, drill out some wood from the bottom. If a little too light, add screw(s) to the bottom (countersunk) or other small weights. These fine adjustments can be made on the pit area. Once a car has been officially weighed and accepted, no additional weight or dry lube may be added.

6. For additional information on how to make a better looking, faster race car, or just to get car design ideas, check out these web sites:

Pinewood Derby SuperSite
The Pope's Place

Darin McGrew's Shape'N Race Derby
Ultimate Pinewood Derby Site

<http://www.inetworld.net/bosworth/>

<http://members.aol.com/standcmr/pwdesign.html>

<http://www.rahul.net/mcgrew/derby/>

<http://users.aol.com/randywoo/pine/index.htm>

You will be racing against your FRIENDS, so lets have fun.