

Additional Pinewood Derby Rules and Procedures:

1. No solid axels – not for possible advantage, but because they don't hold on wheels securely.
2. All axels should be the nails provided in the Pinewood Derby kit.
3. No pre-cut kit cars from Michaels or elsewhere. All cars should be crafted from the official Boy Scout Pinewood Derby kit which contains the rectangular block of wood.
4. Aftermarket Pinewood Derby wheels will be allowed.
5. Wheels may be sanded slightly to remove the molding burr, but further sanding and/or polishing of wheels is not permitted.
6. Weights can be screwed to the cars instead of glued for easier adjustments if necessary. Recessing them under the car is a great idea for aerodynamics and ground clearance. See picture for detail.

SPEED SECRETS OF THE PINWOOD DERBY

Packs around the country are preparing to hold their annual pinewood derby. There are many ways to make your pinewood derby car go faster. Here are some of them.

GENERAL GUIDELINES FOR CAR DESIGN

The possibilities are endless when it comes to picking a shape for your pinewood derby car. Before you begin, consider the following guidelines:

* Avoid designs with a pointed nose. A pointed nose will make it difficult for your car to rest on the pin at the starting gate. It may also cause your car to get bumped around when the pin drops, and it can create problems for electronic timing systems.

* Leave enough wood in the rear of the car so you can place additional weight there. You will end up putting most of the weight in the rear of the car.

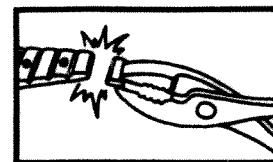
* Be sure that it is very clear which end of your car is the front and which end is the back. In many races, the race officials—not you—will actually place each car on the track. Sometimes the officials put the car on the track backward because they can't tell which end is which.

* Choose a design that allows the air to move over and around the car body in a smooth manner. Cars with aerodynamic profiles go faster.

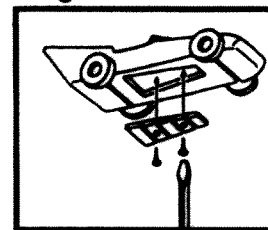
DESIGNING THE ULTIMATE CAR

You don't have to strive for the "ultimate car" to build a fast car and have fun competing in your pinewood derby. But if you and a helpful adult are willing to put in the extra time and effort, these tips are for you.

1. Bake the Block: Start with your block of wood, and before you do anything else, bake it in the oven at 250 degrees for around two hours to remove moisture and make it lighter.
2. Create the Design: Select a fast design.
3. Cut the Design: Draw the outline of your car on a sheet of paper, cut it out and attach it to your block of wood.
4. Make a Three-Wheeler: Raise one wheel about 1/16 inch higher so it never actually touches the track. Less friction = more speed.
5. Extend the Wheelbase: The front and rear wheels should be as far apart as possible.
6. Determine Weight Placement: A heavier rear increases speed. Add weight to the rear.
7. Create Glue Holes: Glue the axles firmly in their holes to ensure that they stay perfectly placed.
8. Sand the Car: Make it smooth to reduce friction.
9. Lubricate the Wheel Well: The less friction between the body and wheel, the better.



- To help adjust your car's weight, simply break off the desired amount of weight and...



- Attach weight to your Pinewood Derby® racing car with a screwdriver.
- For better ground clearance, recess your weights into the bottom of your car.