

Girl Scouts
Basic Rules for Powderpuff Pinewood Derby

The whole family enjoys the excitement of Pinewood Derby Pack 56. The entire process teaches the Scout in many areas from woodworking, precision work, decorating, competition and sportsmanship. Enjoy the time with your scout!

1. **Inspection:** All cars must pass inspection at the time of registration to qualify for competition. No exceptions will be allowed. Cars may NOT be handled after passing inspection. Cars must have been built from the official Pinewood kit provided by the pack. Only the wheels in the kit or official BSA wheels purchased from the Scout Shop can be used. All rules in the kit must be followed except as noted below.
2. **Weight:** Cars must not be heavier than 5.0 ounces. If your care at registration is over-weight, you have until the end of the registration to make weight. All weight must be permanently affixed to the car.
3. **Length and Width:** All cars, including all details and accessories, cannot be longer than 7 inches and no wider than 2-3/4 inches. Compliance with this rule will be checked at registration by placing the car in a box with a cavity of this dimension.
4. **Height:** All racing cars must fit under the timing mechanism. This varies from tract to track, however cars no more than 4 inches tall should not have any problems. A basic Pinewood Derby car out of the box is about 2 inches.
5. **Width Between Wheels:** The width between wheels on all cars shall be a minimum of 1-3/4 inches so the car can straddle the lane wheel guide and roll freely. The body width of an official body is 1-3/4 inches.
6. **Wheels:** Only the wheels in the kit or official BSA wheels purchased from the Scout Shop can be used. All four wheels need NOT to be in contact with the track when set on a flat surface. Wheels may be hand-sanded or “turned” on a drill, drill press or lathe, to make round and smooth tread area by removing burrs. However, you may not round the corners of the tread or remove the “bumpy tread” on the outside edge of the wheel. Wheel tread may not be turned to produce an edge or edges or narrow area on which the wheel runs. Nothing may be added to the wheels in the way of covers, weights or paints.
7. **Wheelbase Length:** The wheelbase of the kit may not be altered. “Wheel base” is the distance between the centers of the front and rear axles. Either end of the car body may be used as the “front”.
8. **Axle Grooves:** Official car bodies have 2 grooves for axles. These grooves must be used. You may force fit or glue axles in place. Check the axles for 90-degree angle to the body. Cars with untrue axles tend to steer to one side, causing it to rub up against the side of the lane strip, slowing it down.
9. **Wheel Bearings, Etc:** Wheel bearings, washer, bushings and springs are prohibited.
10. **Car Body/Track Clearance:** The car body, when the car is on a flat surface, shall have minimum clearance of 3/8 inches from the bottom of the car body and the flat surface. Again, the bottom of the car MUST clear the lane wheel guide that is about ¼ inches high and the car must roll freely.
11. **Official Scout Materials:** In all races, only official Cub Scout car bodies, wheels and axles shall be used. All other building material, weights, paints, glues, lubricants, details and accessories are permitted unless these rules specify otherwise.
12. **Lubricants:** Only dry graphite/molly lubricants may be used for lubrications. No liquid lubricants, waxes, polish soap or other lubricants are permitted. The axles, axle holes, and where the wheel contacts the body of the care are the only points where lubricants may be applied. No graphite is allowed on the tread or sides of the wheels, which will be in contact with the track or “wheel guide”.
13. **Nose Width:** Races are started with car noses resting against a vertical dowel. Cars will be disqualified if the nose width is so narrow that the car will not rest against the starting dowel at the starting line with the entire car behind the starting line. It is recommended that the nose not be less than ½ inch at the front of the car. Important Note: Tracks are equipped with electronic timing systems and sensors. Cars with narrow noses may not trigger the timers

at the time the nose reaches the sensor, resulting in the recording of a slower time than warranted. Because the races will be determined by time, a car that does not trigger an accurate time will be at a disadvantage. Wider noses have an advantage in tripping the timer at the instant the nose reaches the sensor and therefore recording a faster time

14. **Starting Devices:** Cars must be freewheeling, with no starting devices.
15. **Moving/Loose Parts:** No car shall have any moving or loose parts other than wheels.
16. **Starting Positions:** The entire car when in the starting position on a regulation track must be behind the starting line.
17. **Previous Racing:** Cars must NOT have been previously raced or displayed in competition.
18. **Participant Attendance:** The Pack 56 Cub Scout must be present to race his care unless unable to attend because of illness, or participation in another school activity, in which case he mus have a parent present to race his car for him. The Race Committee prior to the race must approve any exception. The entire family is welcome to attend. We encourage your scout invite a guest who may be interested in joining Cub Scouts
19. **Conduct:** Un-sportsman like conduct is NOT tolerated. Anyone showing this behavior will have their associated car pulled from the race and escorted off the premises. The Race Committee will determine if any action is needed and will have the final decision.
20. **Best of Show:** All cars are eligible for this category. The scouts will cast the votes. A special award will be given for "Best of Show".
21. **Trophies:** 1st, 2nd and 3rd places will be awarded. Each scout will receive a participation award.
22. **Rules:** After registration, if any material falls off the car, it may be reattached by the Race Committee personnel only, but must be able to be reattached before the next heat of the race, and must be re-weighed to re-enter the race. People, steering wheels, decorative accessories, etc. not required for the car to race, will NOT be reattached.
23. **Heats:** With the computer program, the elimination process starts removing cars depending on the number of cars racing, the number of heats and the number of times a car loses. It is possible if a car looses two races in a row, and no other car has lost two in a row, that a car could be eliminated as early as the 2nd heat. This process varies from race to race depending on the difference circumstances. All registered participants will compete against each other.
24. **Ties in a Heat:** With accuracy to 1000th of a second, ties rarely occur however they still do. Should ties occur, only tied cars will be re-raced to determine positions for the heat. Only the cars in question will raced and they will be placed on the same lane as the original heat.

The Race Committee will handle incidences as they arise that are not covered in the above rules.