

# Pinewood Derby Rules

## 1. General

- A. The rules for the Pinewood Derby are intended to maintain the competition at a level at which most boys are capable of achieving with minimal adult intervention.
- B. In order to qualify for racing, car must be made with the "Official Grand Prix Pinewood Derby Kit", including wheels, axles, and wood block.
- C. Car must have been made in the current Scouting year.
- D. Only one car may be entered by any person in the Pinewood Derby.
- E. Once cars have been registered, weighed and certified, they will remain in the possession of the race committee until the end of the competition.

## 2. Weight and appearance

- A. Total weight of car may not exceed 5.0 ounces. The car may be hollowed out and built up to the maximum weight by the addition of wood or metal only, provided that it is securely built into the body of the car or firmly affixed to it.
- B. The weight shown on the Official Race Scale is final.
- C. No loose materials of any kind are permitted in or on the car. No mercury-weighted cars will be allowed.
- D. The motion of the car may not be mechanically aided. Motors, springs, rubber bands, etc. are prohibited.
- E. Details such as steering wheel, driver, decals or painting are allowed, as long as these details do not cause the car to exceed the maximum weight, length and width.
- F. All cars may be re-weighed and/or re-inspected at any time for cause, which shall be at the sole discretion of the Chief Judge.

## 3. Length and width

- A. Overall width shall not exceed  $2 \frac{3}{4}$  inches at the furthest horizontal protrusion, whether it is the body of the car, or the wheels. The area where the axels are inserted should be approximately  $1 \frac{3}{4}$  inches wide to ensure that the wheels will fit over the guide strip on the track.
- B. Overall length of the car (measured from the furthest point forward to the furthest point rearward) shall not exceed 7 inches.
- C. The wheelbase (distance between the centers of the front and rear axles) must measure between  $4 \frac{3}{8}$  and  $4 \frac{5}{8}$  inches.
- D. Height of the car shall not exceed 5 inches.
- E. The entire car must stage behind the starting pin.
- F. The underside of the front of the car may not be undercut so as to allow the cars nose to hang out over the top of the starting gate. If the nose protrudes over the starting gate and the official starter is not able to adjust for a fair start, the protruding car will not be allowed to race.

#### 4. Wheels and Axles

- A. No alteration, narrowing, lathe cutting, or re-shaping of wheels (inside or outside) is allowed. Light sanding of the wheel treads to remove irregularities is permissible.
- B. No covers, stickers, or hubcaps will be allowed over the wheels or axles. The axle head must be visible.
- C. Only the official wheels and axles as provided in the official car kits or the official wheel and axle kits may be used. Do not use similar wheels and/or axels available in hobby stores. These may be more highly machined than the "Official Grand Prix Pinewood Derby Kit" and represent an unfair advantage.
- D. Wheel bearings, spacers, and washers are prohibited.
- E. The car shall not ride upon any type of springs.
- F. All cars must have four wheels. Three of the wheels must be touching the track surface at all times.
- G. The car must be free-wheeling with no starting or launching devices.
- H. In order for the car to avoid scraping bottom against the guide strip of the track, it should have 3/8" clearance underneath.

#### 5. Lubrication

- A. Only graphite powder or the new BSA white lube (T102 / polytetra fluor oethylene) may be used to lubricate wheels.
- B. Lubrication must be applied outside of the building and the car wiped clean before it is brought to the race.
- C. Once the car has been inspected, it may not be relubricated except when the wheel is damaged or becomes dislodged during a race.

#### 6. General Rules

- A. Numbers will be assigned and affixed at registration. The official number shall be clearly marked and visible at all times.
- B. No one will be allowed beyond the registration area and into the area immediately surrounding the track except the officials and the boys racing. Those areas will be designated as "restricted."
- C. Each heat will be announced. Drivers will report to the starting line and give their cars to the Official Starter who will place the cars carefully upon the track. All other persons will remain behind the barrier and will not obstruct the view of the other spectators.
- D. The Official Starter will make sure that the cars are on the track properly, and then will start the race. He/she will be the judge of whether the cars are properly aligned on the track, of which cars are to race, and in which lane, and of all matters in the starting area. He/she will also be the judge of "false starts".
- E. Racing results will be determined by a computer timing system which calculates the cumulative time of all race heats for each participant.
- F. When the result of each heat is recorded, the drivers will take their cars back to their designated storage area.
- G. If during a race, a car leaves the track, runs out of it's lane, interferes with another car, or loses an axle, etc., the race may be run again. There will be only one repeat race for this reason in any heat. If the same car has such a problem again, the results of such race will stand, unless the problem car clearly interferes with another car. In this case the interfering car will be declared the loser. The interfering car will receive a time equal to 125% of the time for the slowest car for the heat.
- H. Unless software issues prohibit, the slowest time for each car will be discarded.

## 7. Repairs

- A. There will be an official Pit Area for repairs and alterations. If the car does not qualify at Registration, alterations may be made by the racer and the adult(s) with whom he came.
- B. Repairs will be permitted after racing begins, but shall take place in the official pit area under the direct supervision of the Chief Judge or his/her designee.
- C. It is highly recommended that racers bring their own spare parts.
- D. The Official in charge of the Pit Area will be the judge of what repairs are necessary and allowable. If wheels or axles are replaced, only those wheels and axles actually replaced may be lubricated.
- E. If a car requires repairs, the race will be delayed for a maximum of 5 minutes to allow the racer to repair his car.
- F. If the general racing has been delayed 5 minutes, the racer will be called to race, and upon his failure to report to the starting line at this time, he will forfeit the race. The heat will be run and the car will receive a time equal to the slowest car for the heat.

## 8. Adult Participation in Building Cars

- A. Building a car is a learning experience for the Cub Scout. Adult help is allowed and strongly recommended when using power tools. Otherwise, the car should be designed and built by the Scout and not the adult helper.
- B. Judges may question the Scout to determine the amount and type of help they received and it may be a consideration in awarding prizes.
- C. Separate races will be run for parents and siblings.

## 9. Special Note to All Concerned

This project is a parent and son event, and is recommended as such by the National Boy Scouts of America. The Pinewood Derby Committee strongly suggests that each parent emphasize this idea with your son.

### Sportsmanship

Two things the Pinewood Derby requires each participant to learn are 1) the craft skills necessary to build a car, and 2) the rules that must be followed. Even more important, though, is how we act and behave while participating in the Pinewood Derby or any other group activity. This is called sportsmanship.

The first thing to remember about sportsmanship is that everyone's skills are a little different. You may be good at something like singing or drawing, but not as good at something else like basketball or computers. Parents have different skill levels, too. This doesn't mean that you are a good person one time and not good another time. You can always be a good person, whether or not you have good car-building skills. Remember, you and your friends are individuals first and racers second. This idea is often called having respect for others.

The second thing to remember is to follow the rules. Without rules, there would be no Pinewood Derby. You will never know if you are really good at doing something unless you follow the rules. This is often called being honest.

The third thing to remember about good sportsmanship is that there are winners and losers in every competition. You accept this when you choose to compete. There may be times when you win and feel happy, and times when you lose and feel unhappy. Being a winner is easy, and losing is sometimes hard. If you win, you must not brag or gloat. If you lose, you must not feel jealous or bitter. To be a good sportsman, you must be able to say "I did my best" and be satisfied with the results. You must also be able to appreciate and feel happy for someone else when they run a good race or build a neat car.