



**OFFICIAL  
PACK 142  
PINEWOOD DERBY  
EVENT RULES**

**RACE DAY  
JANUARY 25, 2019**

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## 1. GENERAL RULES: (Applies to all Race Events)

The purpose of the rules is to provide a reasonable and level playing field for all contestants. Our technical rules closely follow the Fishawack District rules. If your car conforms to our rules, then it should also qualify under the Fishawack District Rules. Please read and heed the rules! If you still have uncertainty about what is allowed, please contact a Pinewood Derby Official.

**G-1. Qualification:** All registered Pack 142 Lions, Tigers, Wolves, Bears, and Webelo and Arrow of Light scouts may design, build and enter cars that are eligible to participate in the "Cub Scout Race" event. Siblings of Cub Scouts registered in Pack 142 may design, build and enter cars that are eligible to participate in the "Siblings Race" event.

**G-2. Essential Materials:** All cars entered shall be constructed from the "Official Grand Prix Pinewood Derby Kit" (referred to hereinafter as "the kit") as distributed at the December Pack meeting. Additional kits may be purchased from the Scout Service Center. (Kits may be purchased elsewhere if they are of the exact type manufactured by the BSA as specified above.) **Cars must be built by the registered scout**, with some assistance from a trusted adult if needed. **With the exception of the sibling race, cars that have been constructed without the assistance of a registered scout are not allowed.**

**G-3. Competitor Categories:** All Lion, Tiger, Wolf, Bear, and Webelo and Arrow of Light scouts that are registered within Pack 142 and their siblings may enter this Pinewood Derby. All scouts will have their own divisions for this derby. Cub Scouts will compete with others in the same Cub Scout Den Level. The first, second and third place winners in each level will move on to the Finals. Siblings will not be eligible to move on to the pack finals.

**G-4. Attendance:** The Cub Scout MUST be present the "Day of the Race" and be present at the start of his Scout Level race as well as the Pack finals race (if qualified) to enter his car into competition. **The PWD chairman is allowed by the pack administration to make last-minute decisions about whether a scout's car can participate if the scout is not present due to illness or emergencies.** It is not mandatory that the Cub Scout enter their own car at "Inspection and Registration," however, it is highly encouraged that the scout be present to give the Scout a sense of ownership over their entry. If a scout chooses to leave after his Scout Level race even though they qualify (Reference: Rule C-4f) to race in the pack finals race, their car will be disqualified from racing in the pack finals race at the "Call to Race" time (Reference: Rule C-10).

**G-5. "New Work":** Construction of ALL entries MUST have begun AFTER last year's Pack 142 Pinewood Derby Races.

**G-6. Single Entry per Person:** Only one car may be registered by any person in the Pinewood Derby.

**G-7. Inspection and Registration:** Each car must pass a technical inspection before it may compete. Technical inspection and registration of cars occurs on Tuesday January 22, and Thursday, January 24, 6:30 to 8:30 p.m. in the Littleton School front lobby.

**G-8. Late Registration and Inspection:** If a Cub Scout or Sibling fails to check-in his/her car by the January 24 deadline, he/she may submit his/her car on "Race Day", the final chance to register, Friday, January 25 (between 5:45pm and 6:10pm at the race location) by paying a penalty assessment of \$20.00 per car. Cars MAY NOT be registered after 6:10pm on "Race Day". No exceptions.

**G-9. Failure to Pass Inspection:** The Inspection Committee shall disqualify cars which do not meet the rules as described herein. If a car does not pass inspection, the owner will be informed of the reason their

car did not pass. Cars which fail the initial inspection may be taken home for modifications and brought back no later than 8:30pm on Thursday January 24 for final inspection and registration. Cars returned after January 24 will be assessed the penalties as described in G-8 above.

**G-10. Impound:** No car may be altered in any way after it has been registered. After a car passes inspection and registration, it will be stored by the Pinewood Derby Race Committee until race day.

**G-11. Car Design Rules Interpretation:** Interpretation of the rules described in G1 through G-22 and T-1 thru T-10 are at the sole discretion of the Inspection Committee Judges present during the Registration and Inspection process.

**G-12. Race-Day Rules Interpretation:** On Race-Day, the Cub Scout must make all questions of rules interpretations and procedures to the Three (3) Race Officials promptly. Decisions of Race Officials on questions of rules interpretations and procedure will be based on majority decision of the Three Race Officials. All decisions of the Race Officials are final. Decisions of Race Officials on questions of fact (i.e. the result of a specific race) may not be appealed beyond the Trackmaster and/or Finish Line Judges. **Note:** Unsportsmanlike conduct by any participant or spectator will be grounds for expulsion from the competition and/or the race area.

**G-13. Three Race Officials:** The Three Race Officials for Friday, January 25 will be: **TBA**

**G-14. Trackmaster:** The Trackmaster will be: **Troy Adams**

**G-15. Finish Line Judge:** The Finish Line Judge will be: **TBA**

**G-16. Starter:** The car race Starter will be: **TBA**

**G-17. Chairperson:** The Pinewood Derby Chairperson will be: **Stephanie Lynch**

**G-18. Pit Crew:** The Pit Crew will be: **Pack 142 Set up crew**

**G-19. Race MC:** The Race MC for 2019 will be: **Troy Adams & Steve Tizzoni**

**G-20. Race Software Coordinator:** The Race Software Coordinator will be: **TBA**

**G-21. Race Day Car Inspector:** The Race Day Car Inspectors will be: **TBA**

**G-22. Award Certificate Coordinator:** The Award Certificate Coordinator will be: **TBA**

## 2. CUB SCOUT RACE CAR DESIGN STANDARDS

**T-1. Material:** Race cars shall be constructed for this event from the parts contained in the kit as sold by the Scout Service Center. Materials from the kit may be supplemented but not replaced.

**T-2. Weight:** Race cars may weigh no more than five (5.0) ounces (total weight) as determined on the official scales during the pre-race and/or inspection check-in. The weight will be recorded by the official scale to the hundredth of an ounce rounded to the nearest tenth. Note: The official scale will be available during "Rough Cut Sunday."

**T-3. Wheels and Axles:** The car shall roll on the wheels from the kit. The wheels shall turn about the axle nails from the kit. The axle nails shall be firmly affixed to the wood of the car body and **MUST** be placed in the original 'axle grooves' in the supplied wooden block. **The axel nails may be sanded and polished, BUT CANNOT be channeled or cut in any way.** It must be obvious to the judges that the grooves, wheels, and the nails from the kit are being used. All four (4) wheels do not need to touch the track surface when rolled. The car shall not ride on springs.

**T-4. Size:** Race cars may be no longer than seven (7) inches, nor wider than two and three-quarter ( $2\frac{3}{4}$  or 2.75) inches, nor taller than three and three-quarter ( $3\frac{3}{4}$  or 3.75) inches from bottom of wheels to top most point of race car, as determined by the official gages during the Registration and Inspection. Underside clearance of at least three-eighths ( $\frac{3}{8}$  or 0.375) of an inch and inside wheel to wheel clearance of at least one and three-quarter ( $1\frac{3}{4}$  or 1.75) inches is recommended, so that the car will run on the race track. Adequate clearance is the responsibility of the race car builder. The height restriction is governed by the height of the electronic finish line.

**T-5. Weights and Attachment:** Weight may be added to the car and will be considered part of the car for purposes of all measurements. "Weight" is considered to be any material on the car that is not provided in the kit. All weight must be securely fastened to the car, e.g. by permanent glue, nails, wire or screws, but not by "weak sticky substances," e.g. tape, or tack spray. Weights shall be passive, i.e. non-moveable, non-magnetic, non-electric, non-sticky, etc. Only exception to the stickiness is if during final registration a small amount (less than 0.5 ounces) is needed to maximize to the weight requirement, fun-tack can be used to adhere additional weight or be the weight itself. Placement of fun-tack must be anywhere on the car behind the front wheel axle plane.

**T-6. Wheel Treatment:** Wheel treatment (hub and tread smoothing and polishing) may not result in tread removal, or in reducing the wheel width that touches the track surface from the original kit wheels. Some of the original "tread marks" on the wheel face must remain intact, i.e. apparent to the inspector. Wheels may not be machined to a beveled condition on the surface that touches the track. Mold projection defects on wheel treads may be removed by sanding lightly. The decorative dots on the wheel treads may not be removed.

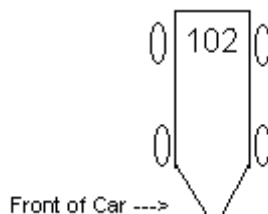
**T-7. Unacceptable Construction:** The following may NOT be used in conjunction with the wheels or axles: hubcaps, washers, inserts, sleeves, bearings. In addition, there may be no point on any part of the car that protrudes past the point of the car that will rest on the Starting Pin. Hence, indented noses are prohibited. Also, the front of the car that rests on the starting pin must be at least approximately one-eighth ( $\frac{1}{8}$ ) of an inch wide.

**T-8. Gravity Powered:** The race car may not be constructed or treated in such a way that the track's starting mechanism imparts momentum to the car. (For instance, this provision disqualifies cars with sticky substances on the front of the car and protrusions which may catch on the starting pin.) In

addition, the car must be freewheeling with no starting devices or other propulsion. The motion of the car may not be mechanically aided (motor, springs, rubber bands, etc., are prohibited).

**T-9. Lubricants:** Only dry lubricants or lubricants that dry prior to check-in (such as graphite or powdered Teflon "white lube") will be allowed for lubricating the wheels. *Lubricants may not foul the track.* Once the race car has been impounded after successful inspection, no further lubrication is allowed.

**T-10. Numbering:** All cars must have their assigned registration number painted and/or affixed to the top of the car in a form that is legible and the numbers must be at least one-quarter ( $\frac{1}{4}$ ) of an inch in height. The numbers must be placed so that they can be read right side up by a person holding the car with the front facing them. The stick-on numbers supplied in the PWD kit can be used. If you lose or forget your registration number, please email or call one of the Race Officials. See Diagram on next page.



### 3. CONDUCT OF THE RACES

Competition will consist of heat races within each Scout level, and a series of final heats at the Pack level. Track officials are responsible for the proper conduct of the races.

**C-1. Inspection:** The race-day "Pit Stop" area will have the official scale and length box. That check-in equipment will be the official equipment for the race. (The same 5 oz. Master Weight used for scale calibration in pre-race check-in will also be available on race day. Please stress this fact to all Cub Scouts. They should be prepared to make adjustments to their cars if necessary.) All cars that have "PASSED" inspections prior to "Race Day" and whose cars have been impounded can be subject to further inspection by Derby officials up to three (3) hours before the race start time. If an inspection fault is found, the car owner will be notified as soon as possible and the car will be given back to the Scout for correction. After 11:30am on Race Day (2½ hours before start time), inspections will be considered final for all cars previously impounded. For cars impounded during Race Day, after 1:00pm on Race Day, inspections will be considered final for cars registered that night.

**C-2. Race Day Lubrication:** In the interest of fairness, once the race car has been impounded after successful inspection, no further lubrication is allowed.

**C-3. Car Handling Responsibility:** Cars will be staged on the tracks by the Starter and Parking Lot Attendant. The Parking Lot Attendant will ready the cars for their lane placement based on the output of the Grand Prix Race Master computer software and present to the Starter. The Starter will place the cars on the track, trying at best to center each car with no wheels touching the inner rail. If the design of your car is such that the direction, front or back, is not obvious to the Starter, the car will be placed according to the Starters best judgment and the race will be considered official regardless of the placement. The

race will NOT be re-run due to a car running backwards. Cars will not be handled by the scouts during the race. Besides the pinewood derby officials, no one is allowed to handle the cars during the race unless otherwise directed by a pinewood derby official (i.e. – for the purpose of repair if damaged during the race as directed by rules C7 & C8, etc.)

**C-4. Race Format & Lane Assignment:** Race format is based on a “low point” scoring system as follows:

- a) Points are awarded for first, second, third, fourth, fifth, and sixth place finishes in each race. One point for first place through six points for sixth place.
- b) Cars race in their respective divisions until they have accumulated eight (or more) points; this assures that every car will run in at least two division races.
- c) Individual cars competing in a given race are chosen through a random selection process & all lane assignments are random and chosen by the computer.
- d) Races where the number of cars competing is less than six will have "ghost" cars added to occupy any open track positions; competing cars will earn points as specified above.
- e) The six remaining cars within a division will run in a series of races to determine the division champion. These cars will run one race per lane on the track until each car has raced in each lane of the track. For a six-lane track, six races will be run with each car racing in a different lane each time. Accumulated point totals from all prior races will be set to zero. The car with the fewest number of points after the six races is the first-place winner. Second, third, fourth, fifth & sixth place cars are determined by the next lowest point totals, respectively. Ties for a given place will be determined by a sudden death race.
- f) First, second, and third place winners from the all divisions will be eligible to compete for the Pack 142 championship in the pack finals race. Race format will be the same as that for division championship. **The pack championship will be organized as a race between the 18 finalists in a round robin, six-run per car format. The six top places will be determined by these runs.**

**C-5. Car Leaves Lane:** If, during a race heat, a car leaves its lane but proceeds down the track in a manner that does not interfere with its opponent, then the race will be called normally. If the car leaves its lane and interferes with another car, the race will be re-staged and re-run. If the same car again (in the re-run) leaves its lane and interferes with another car, that car will be judged last place, and the race will be re-staged and re-run without that car.

**C-6. Car Leaves Track:** If, during a race heat, a car leaves the track without interfering with its opponent, it shall be considered to have ended its heat at that point and the race will be called normally as long as the Trackmaster deems no obvious track obstruction caused the fault (See Rule C-12). No time will be recorded for the car and the car will receive the maximum points allowable (judged as last place) for that race heat. If a ghost car or cars exist in that race heat, the last place points will be that of the lowest ghost car minus one.

**C-7. Car Repair (Without Fault):** If, during the race, a wheel falls off or the car becomes otherwise damaged, then the scout may, to the best of his ability, perform repairs with the assistance of his adult partner. No more than five (5) minutes will be allowed per incident. Only the damaged portion of the car may be modified. If the scout is unable to repair the car in five (5) minutes or opts not to repair the car, then the race will continue without the car.

**C-8 Car Repair (With Fault):** If a car is damaged due to track fault or damage caused by another car or person, then the scout may, to the best of his ability, perform repairs with the assistance of his adult partner and also, at his sole discretion, may request additional assistance from a pinewood derby official. No more than five (5) minutes will be allowed per incidence. Only the damaged portion of the car may be modified. If the scout is unable to repair the car in five (5) minutes or opts not to repair the car, then

the race will continue without the car.

If an extra car was built by the scout conforming to the same design standards in Section II of this document, it may be entered into the race as a replacement for the car damaged beyond repair. This car will have to pass inspection by the race officials before it can be entered into the race as a replacement car. No late registration fee will be assessed to this car.

**C-9. No Finishers or Non-Finisher:** If, during a race heat, no car reaches the finish line on the track, the car which went the farthest in its lane shall be declared as the heat winner, and all other cars will be given the appropriate points based on their final positions relative to the heat winner. No race times will be measured. In addition, if a car or cars, but not all, stop/s prior to the finish line and remains in lane, they will be given the appropriate points based on their final positions relative to the heat winner and no times will be measured.

**C-10. Call to Race:** At the beginning of Scout Level, Sibling Race and Pack Final race heat, competitors will be asked to check their registration information on the “Big Board” and will be given two (2) minutes to come to the Software Coordinator station and notify derby officials of any incorrect information. It is very important that each competitor not only check the spelling of his name and car number, but also make sure the field “Racing” is set to “Y” if they have submitted a car to be raced. If the competitor or his adult partner does not present himself in time before the race heat begins to correct the information and the “Racing” field is set to “N” for the car, the race will continue without the car and this car will be disqualified from racing in the Scout Level race and pack finals race. The Derby Officials will do their best to ensure that all registration information is transferred to the computer correctly, but it is up to the competitor to ensure that they have been included in the race at the “Call to Race” time.

**C-11. Track Level Champions:** The top three Champion/finisher cars from each den level shall be impounded in the race parking lot until the finish of the Pack Finals race.

**C-12. Track Fault:** If a car leaves its lane, at his sole discretion, the Trackmaster may inspect the track and, if a track fault is found which probably caused the initial violation, the Trackmaster may order the race heat to be rerun after the track is repaired.

**C-13. The Race Area:** Only race officials may enter the track area. This rule will be strictly enforced.

**C-14. Rewards and Recognition:** The most important values in Pinewood Derby competition are parent/son participation, good sportsmanship, and learning how to follow rules. The Awards Committee is responsible for recognizing and encouraging these qualities in addition to traditional racing awards. Racers will be recognized as follows:

- a.) Every participating Scout will receive a Pinewood Derby participation patch and/or pin.
- b.) Select cars will be awarded a trophy for winning based upon its own unique appearance. This category will be known as “Judges’ Favorite.” The judging will take place on or after the last weigh-in night but before the Race Day. Late Registration (G-8) check-in cars are not eligible for certificate awards.
- c) Medals will be awarded to the first-, second- and third-place finishers in all scout levels.
- d) Trophies will be awarded for the first- thru third-place finishers overall in the Pack 142 pack finals race.
- e) Medals will be awarded for “The Judges’ Favorite” subjective judging category. One medal in each scout level will be awarded.

f) The overall first place winner for Pack 142 will be given the Pack 142 Derby Neckerchief to be worn throughout the year and will eventually be passed on to the next year winner. If the overall first place winner is an Arrow of Light or scout not planning to return in the following year, then the Pack 142 Derby Neckerchief will be given to the next place overall winner that plans to return to cub scouting. The recipient of this award agrees to return the Pack 142 Derby Neckerchief at following year's Pinewood derby race.

#### 4. THE RACING ENVIRONMENT

**R-1. Track Length and Drop:** The track shall have a racing surface (starting line to finish line distance) of approximately 29 feet with a drop of approximately four feet.

**R-2. Track Slope:** The track slope shall decrease from approximately 30 degrees at the starting line to approximately zero degrees at the finish line.

**R-3. Lanes:** Each lane will consist of a straight, smooth aluminum strip approximately 1-1/2 (1.50) inches, but certainly less than 1¾ (1.75) inches wide and approximately one-quarter (¼ or 0.25) inches wide, but certainly less than 3/8 (0.375) inches thick, centered on a smooth surface no less than four (4) inches wide. Each race car shall straddle such a strip during its heats.

**R-4. Starting Mechanism:** The "starting line" shall consist of vertical pins of approximately 1/4 inch diameter, extending approximately two (2) inches above the track wheel surface and approximately centered in the each lane.

**R-5. Finish Line Sensor Location:** The track has electronics called "finish line sensors" that shall be in alignment with the corresponding starting line pin and be approximately centered in its lane.

**R-6. Finish Line Judging:** The impartial Finish Line Judge shall be at station to observe each heat on each track. Heat finish judging is determined by the electronic finish line sensor ("The Champ"), but may be challenged by the Finish Line Judges with appropriate consultation from the Three Race Officials. If the track's electronic finish line sensor's result is challenged by the Finish Line Judges and deemed to be in error by the race officials, the race will be re-staged and re-run.

**R-7. Finish Line Judge Backup:** Backup Finish Line Judges shall be available in case a judge needs to be excused for any reason.

**R-8. The "Big Board":** Competition shall be head-to-head multiple-elimination competition. The result of each heat will be displayed on an event screen called the "Big Board" or "Jumbo-Tron." The Big Board will be an overhead projector output of the computer software ("Grand Prix Race Manager") whose screen is located on the side of the gym by the windows.

**R-9. Finish Line Electronics Sensitivity:** Track Finish Line Electronics, if used, must trigger correctly if a lead pencil is passed three-quarter (¾ or 0.75) inches above the track surface at a speed of 15 feet per second.

**R-10. Finish Line Clearance:** Track Finish Line Electronics and other track accessories, if used, must be no closer than 3.75 inches above the track surface where the car wheels touch.



## 5. SIBLINGS' RACE & CAR DESIGN STANDARDS

The purpose of the Siblings' Race event is to allow the scout's siblings to have a little fun along with the scouts. **The final six sibling cars will run only three times each to determine the Sibling Category Champion.**

All siblings are encouraged to build their own cars with their adult partners. The siblings' race will be held in the middle of the Scouts' race on "Race Day" between the Wolf and Bear Scout Level races.

**S-1. Technical standards:** The Technical Standards (T1-T10) for the Cub Scout race (above) will be used in the Siblings' Race.

**S-2. Registration and Inspection:** The General Standards for Registration and Inspection (G1-G22) for the Cub Scout race (above) will be used in the Siblings' Race. The Inspection Committee shall disqualify cars which do not meet the rules as described herein by (T1-T10). If a car does not pass inspection, the owner will be informed of the reason why his/her car did not pass.

**S-3. Entry Fee:** There is no entry fee for sibling cars unless Rule G-8 applies.

**S-4. Eligibility and Number of Entries:** Any sibling of a Cub Scout who is registered in Pack 142 may enter this race. Only one car per sibling may race. No other entrants will be allowed (i.e. – relatives other than siblings, friends, etc...).

**S-5. The Car:** You may NOT use your registered scout's current car or previously raced cars for this race. Please refer to rule S-1.

**S-6. Weigh-In:** The General Standards for Weigh-In (G1-G22) for the Cub Scout race (above) will be used in the Siblings' Race.

**S-7. Race Format:** Race format will follow C-4 with the following exceptions:

**C-4b)** Cars race in their respective divisions until they have accumulated two (or more) points; this assures that every car will run in at least one division race.

**C-4f)** Siblings are NOT allowed to race in the Pack Finals race.

**S-8. What Do The Winners Get?** Winners will be recognized with honor, glory, and the top three finishers will receive medals!

## 6. SPECIAL NOTES TO ALL CONCERNED

This project is a parent and scout event and is recommended as such by Scouts BSA. The Pinewood Derby Committee STRONGLY SUGGESTS that each parent emphasize this idea with your scout. In all the events, we require that the cars be built this year.

### **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.

**Important Dates to Remember:**

**1/22** Inspection and Registration, Littleton School – 6:30pm to 8:30pm

**1/24** Inspection and Registration (last chance), Littleton School - 6:30pm to 8:30pm

**1/25** Late Inspection and Reg. -\$20 penalty fee for late registration – 5:45pm - 6:10pm

**1/25** Pinewood Derby “Race Day”! 6:30pm to approximately 10:15pm

(All Times Are Approximate)

|                   |  |
|-------------------|--|
| 4:30pm – 6:30pm   | Setup *** <i>Volunteers needed!</i>        |
| 05:50pm           | Late Check-in ends                         |
| 06:30pm           | Doors Open - Pizza Sold (and during races) |
| 06:30pm - 06:45pm | Opening Ceremonies                         |
| 06:45pm - 07:00pm | Lion Division                              |
| 07:00pm - 07:20pm | Tiger Cubs Division                        |
| 07:20pm - 07:40pm | Wolf Division                              |
| 07:40pm - 08:00pm | Siblings’ Race                             |
| 08:00pm – 08:20pm | Bear Division                              |
| 08:20pm - 08:40pm | Webelos Division                           |
| 08:40pm - 09:00pm | AOL Division                               |
| 09:00pm – 09:10pm | SET UP FOR FINALS                          |
| 09:10pm - 09:30pm | Pack Finals Champion Run                   |
| 09:30pm – 9:45pm  | Awards                                     |
| 09:45pm – 10:15pm | Clean-up *** <i>Volunteers needed!</i>     |

## 7. FREQUENTLY ASKED Q&A's

**Q1:** The hobby store at the shopping center sells precut car bodies. Can I use those instead of the block from the kit?

**A1:** Yes, but cars that are fully built are not allowed. Cars must be built by the registered scout, with some assistance from a trusted adult if needed. With the exception of the sibling race, cars that have been constructed without the assistance of a registered scout are not allowed.

**Q2:** A national supplier of pinewood derby stuff sells "performance axles and wheels." Can I use those instead of the wheels and axles from the kit?

**A2:** No. The performance wheels can be recognized by a slight indentation across the tread profile. That indentation is not a legal profile. Legal profile requires that the tread be straight across. (Reference: Rule T-6.) The axles can be recognized by an indentation on the outer face of the axle head. Reference: Rule G-2 and T-3.

**Q3:** My front wheels extend beyond the front of my car. Is this permitted?

**A3:** No. (Reference: Rule T-7).

**Q4:** My car has a hole in the front middle where the starting pin would rest. Can it be staged at the starting line so that the starting pin goes up through the center of the car?

**A4:** No. (Reference: Rule T-7).

**Q5:** My car has only 5/16" clearance between the body and the bottom of the wheels. If my car leaves the track because of a "high spot," will a rerun be allowed?

**A5:** Probably not. If the "high spot" is less than 3/8", then the track is proper in that respect (see rule R-3), and the car "is at fault" because it ignored the guidance in rule T-4.

**Q6:** (Continuing from last question) Then, can I change my car to correct the problem in Q5?

**A6:** Only if the fault was caused by an improper track tolerance, otherwise No. The car will continue to be raced according to the software assignment.

**Q7:** I must arrive late for the race because of a ball game. Can my friend, or parent check my car in for me?

**A7:** No. You must choose which activity to participate in. (Reference: Rule G-4).

**Q8:** My Cubmaster (or Dad, or Grandfather) built a car when he was a Cub Scout. Can he race it in the Siblings' Race?

**A8:** No, but he can show it and race it in a promotional race event should one be done during the night. (Reference: Rule G-5).

**Q9:** Do I have to put the axles in the slots of the original block?

**A9:** Yes. (Reference: Rule T-3). You may pre-drill holes for the axles in the slots of the original block and/or putty up or glue the slots. Watch out for the underbody clearance, and assure that you have at least 3/8". Also, be sure that it is obvious to the judges that the grooves, wheels, and the nails from the kit are being used.

**Q10:** When I set my car on a flat surface, one of the wheels does not touch. Is this okay?

**A10:** Yes. At least three (3) wheels must touch the surface when the car is rolled. (Reference: Rule T-3).

**Q11:** My car was weighed at the XXXX High Precision Laboratory and found to be 4.999995 ounces. On race day they told me that my car was "too heavy" and that I must reduce its weight before it will be

allowed to race. This isn't fair.

**A11:** A number of factors come into play in this. First, wood is "not stable". For instance, it can absorb moisture from the air. Thus, its weight can change slightly from day to day. Since you were so close to the limit at that time, it is reasonable to believe that you are now over the limit. Secondly, if the race official must take your word for compliance, then they must take everyone's word for compliance. So, there would be no need for inspection. Remember, not everyone is as honest as you are! Third, five ounces is what the official scale says is five ounces. Every effort will be made to assure that the scale is accurate and that a reliable 5-ounce standard is available to verify the scale's accuracy. The important thing is that everyone races according to the same standard.

**Q12:** Oops! My car is much lighter than 5 ounces. Can I add weight on race day or inspection day?

**A12:** Yes, provided that rules, especially rule T-5, are satisfied. For instance, you may securely attach a penny (nickel, dime, quarter, washer, chunk of lead, etc.) to the top, bottom or side of the car using "super-glue" or fun-tack, but not with tape or "spray tack." Of course, after the change, the car must still pass inspection. Be extra careful about adding weight to the underside of the car. This could cause the car to drag on the center guide rail if the 3/8" underbody clearance were not present.

**Q13:** I heard about a "super slick" lubricant that I want to use on my wheels. Is that allowed?

**A13:** Yes, provided it is dry at the time of inspection and racing. (Reference: Rule T-9). Oil and grease are not "dry." Powdered Graphite is a dry lubricant.

**Q14:** My wheels and axles from last year performed really well. Can I use them in this year's car?

**A14:** No. (Reference: Rule G-5).

**Q15:** If my car passes inspection and is impounded, can a derby official re-inspect my car during race time and pull my car out of the race if an inspection fault is found that was missed at inspection check-in time?

**A15:** No. (Reference: Rule C-1).

**Q16:** What can I do if the inspection judge says that my wheels are illegally crowned? (See rule T-6)

**A16:** The Cub Scout may appeal to the Pinewood Derby Chairman and/or to the three Race Officials. If the appeals are denied, the Cub Scout and his assistant may replace the wheels or decline to race. Wheel kits will be available (supplies permitting) for sale at the inspection table and/or Pit Stop areas.

**Q17:** I think that my wheels last year might have been illegal, but the inspection judges let me race. Does that mean that if I do the wheels exactly the same way this year, then I will have no problem with them at inspection?

**A17:** The results from last year's inspection don't determine the results of this year's inspection. Perhaps the inspection judge was not trained as well as the team this year, or perhaps the inspection judge just made a mistake last year. We will be trying to assure that all inspection judges will be well trained this year and that they will do their jobs consistently and in strict accordance with the current rules.

**Q18:** Two styles of wheels are in the Grand Prix Pinewood Derby kits sold by the Boy Scout Service Center. Can either be used?

**A18:** Both style of wheels are current "Official BSA Grand Prix Pinewood Derby" wheels and are acceptable for racing.

**Q19:** On close inspection, the wheels that are "fresh out of the BSA box" do not appear to be "flat across the tread" as required in the rules. Can they be raced "out of the box, as is?" Or must the tread be "flattened" in order to satisfy the district rules?

**A19:** Wheels can be raced "as is," exactly as supplied by BSA, "fresh out of the BSA box." If the wheels

are "worked," then they must conform to the rules. (The inspection judge can tell the difference!)

**Q20:** Must my axles be level? Is it okay to angle them up or down? [Some builders believe that angling the ends of the axles up so that the wheels stay at the ends of the axles and ride on the inside edge of the tread is advantageous.]

**A20:** No, the axles do not have to be level. Yes, it is okay to angle them up or down. There is no rule that prevents this.

**Q21:** I weighed my car in the pit/exception area and it was less than 5 oz, but on the scale in the inspection check in line it is overweight. Doesn't the pit scale weight count?

**A21:** No, the pit scale weight does not count. The official weight for a car is the weight taken on the inspection check in line scale.

**Q22:** If the pit scale does not count, then what use is it?

**A22:** The purpose of the pit scale is to help you get very close to the official weight. To help assure that you are using a properly calibrated scale and using it correctly, we will provide a reference that has been weighed on the official scale. Pit scale results will still not be "official," but you should expect to be within a couple hundredths of an ounce of the official weight. (One racer used an inch-long bead of hot glue on the top of his car to add about 0.05 ounces to his car. It would have been easily trimmed with a knife if the car turned out to be a bit over the limit.)

**Q23:** My car passed inspection and was impounded, but I can't be present the day of the race (i.e. - due to family vacation, sickness, death in family, etc...). Can my car still be raced? What if a family member was present? Can it be raced in the siblings' race?

**A23:** No. If the scout is not present at the beginning of his scout level race and pack final race (if qualified), the car will be excluded from all races. See rule G-4. While all reasons are valid and some very personal, it is not the race officials' intent to minimize the seriousness of some reasons, just to keep a consistent approach and equitable application of the rules.

**Q25:** Can a parent, guardian or other adult help me build my car?

**A25:** Yes. The key word is "help". Cars must be built by the registered scout, with some assistance from a trusted adult if needed. With the exception of the sibling race, cars that have been constructed without the assistance of a registered scout are not allowed.