

## KONZA DISTRICT PINEWOOD DERBY RULES

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

**G-1 Qualification:** All Cub Scouts registered in the Konza District. All pinewood derby cars that placed in the top 2 places of their respective Rank's race in their Pack's derby are eligible to enter and participate in the district race event.

**G-2 Essential Materials:** All cars entered shall be constructed from the "Official Grand Prix Pinewood Derby Kit", item number 17006, (referred to below as the kit) as distributed by Scouting America. Additional kits may be purchased from the Scout Service Center, Salina, Kansas or the Pathfinder in Manhattan, Kansas. (Kits may be purchased elsewhere if they are of the exact type manufactured by the SA as specified above.)

**G-3 Competitor Categories:** The Cub Scouts will compete with others in the same rank, i.e. Lion, Tiger, Wolf, Bear, Webelos, and AOL Webelos.

**G-4 Attendance:** The Scout MUST enter their own car for the Pack's race. This means that the Cub Scout must be present at "Inspection and Registration" to enter their car into competition. The Cubmaster or Pack Pinewood Derby Chairman will represent the Cub Scout at the District "Inspection and Registration".

**G-5 "New Work":** Construction of ALL entries MUST have begun AFTER the previous year's District 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 a date or dates prior to the Pack race. The District inspection times are established each year and will be announced well in advance of the race date.

**G-8 Failure to Pass Inspection:** The District 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 modified on-site.

**G-9 Impound:** No car may be altered in any way after it has been registered. After a car passes registration, it will be impounded and stored by the Pinewood Derby Race Committee until race day.

## KONZA DISTRICT PINEWOOD DERBY RULES

**G-10 Car Design Rules Interpretation:** Interpretation of the rules described in G1 through G-9, and T-1 thru T-9 are at the sole discretion of the District Inspection Committee present during the Registration and Inspection process.

**G-11 Race-Day Rules Interpretation:** On Race-Day, the Cub Scout must make all questions of rules interpretations and procedures to the Pinewood Derby Chairman or Race Officials promptly. Decisions of Race Officials on questions of rules interpretations and procedure may be appealed to the Pinewood Derby Chairman. All decisions of the Pinewood Derby Chairman 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.

## II. CUB SCOUT RACE CAR DESIGN STANDARDS

**D-1 Material:** Race cars shall be constructed for this event from the parts contained in the Official Grand Prix Pinewood Derby Kit, item number 17006, (referred to below as the kit) as sold by the Scout Service Center, Salina, Kansas. Materials from the kit may be supplemented but not replaced.

**D-2 Weight:** Race cars may weigh no more than five (5) ounces (total weight) as determined on the official scales during the pre-race check-in sessions.

**D-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 axle grooves must measure 4 5/16 inches apart. It must be obvious to the judges that the grooves, wheels, and the nails from the kit are being used. Pinecar (Hobby Lobby), Awana, and other pine style car kits, including wheels and axles from these non-SA kits will not pass inspection for the district race event. All wheels must exhibit the SA Pinewood Derby lettering on the wheels to be legal. Solid/one-piece axles are also not allowed.

**D-4 Size: Mandatory dimensions** for all race cars may be no longer than 7 inches, nor wider than 2-3/4 (2.75) inches, and overall maximum car height 3 inches, as determined by the official gages during the Registration and Inspection. **Additional** recommended dimensions **for all race cars should be;** underside clearance of at least 3/8 (0.375) inches and inside wheel to wheel clearance of at least 1-3/4 (1.75) inches. These recommended are to ensure that the car will run on the race track and clear electronic timer. Adequate clearance is the responsibility of the race car builder and will be achieved if the car is within the dimensions recommended. Do not carve

## KONZA DISTRICT PINEWOOD DERBY RULES

out the front of the car. The front center should be the forward most part of the car and flat, so that it may rest against the starting pin.

**D-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 or screws, but not by "sticky substances", e.g. tape, or tack spray. Weights shall be passive, i.e. non-moveable, non-magnetic, non-electric, non-sticky, etc. Weights added to the bottom of the car should be recessed into the car if possible. The braking system at the end of the track utilizes friction against the flat bottom of the car to stop its forward motion after the race. **WARNING: DO NOT use live ammunition (or anything that resembles live ammunition) for Weight.**

**D-6 Wheel Treatment:** Wheel treatment (hub and tread smoothing and polishing) may not result in substantial removal of mass nor in reducing the wheel width 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 and the portion of the wheel surface that contacts the track must remain parallel to the axle.

**D-7 Unacceptable Construction:** The following may NOT be used in conjunction with the wheels or axles: hubcaps, washers, inserts, sleeves, bearings.

**D-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.)

**D-9 Lubricants:** Only dry lubricants such as graphite or powdered Teflon "white lube" will be allowed for lubricating the wheels. Lubricants may not foul the track. The cars should be lubricated when turned into the District Race Inspection Officials.

### III. CONDUCT OF THE RACES

Competition will consist of heat races within each rank. Track officials are responsible for the proper conduct of the races.

**C-1 Inspection Gages:** The pre-race registration "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

## KONZA DISTRICT PINEWOOD DERBY RULES

be available on race day. All cars on race day will already have been inspected and entered if qualified to race. No late entry cars will be accepted on race day. Please stress this fact to all Cub Scouts and parents. They should turn in cars for the race early and be prepared to adjust their cars if necessary, only if there is a track or car malfunction as described below.)

**C-2 Pack Registration:** Scouts shall be responsible to present their own cars to the Pack representative before the Pack race. All cars will be lubricated in accordance with their Pack race rules/registration. Cars will be inspected, raced in the Pack race, and impounded by your Pack representative to be turned in for district registration. It is recommended that all Packs participating in the district race utilize a district check-in kit if not using the district track. This kit contains a dimension box and check weight in accordance with the district registration.

**C-3 District Registration:** The two cars for each Rank, which qualified in the Pack race, will be turned in by the Pack representative. The district registration will have a second inspection to verify all cars meet the requirements. No cars will be accepted after the last schedule district registration. Cars will be staged on the tracks by the "Starter Team" on race day. Cars will be returned to the Scouts following the completion of each competitor category race event.

**C-4 Lane Assignment:** To equalize differences among track lanes, each car will race in each lane. The fastest total time of all heats for the car, determines its placing in the race. If a tie occurs, a run-off of the cars who tied will be conducted. Two additional heats will be run with each car running in the outside lanes, the fastest total time during this run-off will determine the placing.

**C-5 Car Leaves Lane/Track:** If, during a race heat, a car leaves its lane/track, the race will be re-run because of possible human error. The cars will run in the previously assigned lanes.

**C-6 Car Leaves Lane/Track a second time without interfering with another car:** 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, 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 will be awarded a time of 9.99 seconds. If more than 1 car leaves the track and does not interfere with any other car, the car traveling the least distance down the track will be considered last in that heat, 2nd furthest down the track next to last and so on.

## KONZA DISTRICT PINEWOOD DERBY RULES

**C-7 Car Leaves Lane/Track a second time and interferes with another car:** If the car leaves its lane/track and interferes with another car, the race will be re-staged and rerun. If the same car again leaves its lane/track and interferes with another car, that

car will be judged last place for the heat, receive a time of 9.99 seconds, and the race will be re-staged and re-run without that car.

**C-8 Car Repair (Without Fault):** If, during the race, a wheel falls off or the car becomes otherwise damaged, no repairs will be allowed.

**C-9 Car Repair (With Fault):** If a car is damaged due to track fault, or damage caused by another car or person, then the Trackmaster, at their sole discretion, may allow additional repair assistance to the Scout.

**C-10 Non-Finishers:** In any heat, regardless of whether the car leaves the track or not, a car not crossing the finish line will be awarded a time of 9.99 seconds. 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, the car traveling the second furthest, 2nd place, and so on and all cars will be awarded a time of 9.99 seconds.

**C-11 Track Fault:** If a car leaves its lane, at their 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-12 The Race Area:** Only race officials may enter the track area, with the exception of the Scout viewing area near the finish line. Persons allowed in the Scout viewing area are limited to Scouts whose cars are entered into the current race. These rules will be strictly enforced.

**C-13 Rewards and Recognition:** The most important values in Pinewood Derby competition are parent/scout 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 Medals or trophies will be awarded to the first, second, third, and fourth place finishers in each rank's race.
- b Medals or trophies will be awarded for the most original and best-looking cars in each rank.

## KONZA DISTRICT PINEWOOD DERBY RULES

### IV. THE RACING ENVIRONMENT

**R-1 Finish Line Judging:** An impartial Finish Line Judge shall be stationed to observe each heat raced on the track. Heat finish judging is determined by the finish line sensor but may be challenged by the Finish Line Judge if an apparent malfunction of the equipment occurred. If the electronic finish line sensor is not functioning, the number of finish line judges will be increased to determine race placing and those judges have final authority of the order of finish of the cars based on a majority rule of the judges. If the track's electronic finish line sensor's result is challenged by the Finish Line Judge or there is not a majority decision as to the result of any heat race, the race will be re-staged and re-run.

**R-2 Finish Line Judge Backup:** Finish Line Judges will temporarily excuse themselves if they know that one of the heat contestants is a child or relative. Backup Finish Line Judges shall be available in case a judge needs to be excused for any reason.

**R-3 Finish Line Electronics Sensitivity:** Track Finish Line Electronics, if used, must trigger correctly if a lead pencil is passed 3/4 (0.75) inches above the track surface at a speed of 15 feet per second.

**R-4 Finish Line Clearance:** Track Finish Line Electronics and other track accessories, if used, must be no closer than 3 inches above the track.

### V. SPECIAL NOTES TO ALL CONCERNED

This project is a parent and scout activity and is recommended as such by Scouting America. The Pinewood Derby Committee STRONGLY SUGGESTS that each parent emphasize this idea with their scout. In all of the scout's 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.

## **KONZA DISTRICT PINEWOOD DERBY RULES**

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.