Sons of Liberty District Pinewood Derby, 2026 - Race Rules

GENERAL:

G-1. Essential Materials: All cars entered shall be constructed from the Official Grand Prix Pinewood Derby Kit (referred to below as the kit) as sold by the Scout Shop, (Kits may be purchased elsewhere if they are of the exact type specified above.)

G-2. Competitor Categories: Cub Scouts will compete with others in the same "Cub Scout Year." In most cases this aligns with their year in school: Tiger = 1st grade; Wolf = 2nd grade; Bear = 3rd grade; Webelos = 4th grade; Arrow of Light = 5th grade. In those cases which don't match the alignment, reconfirm the information and enter the Cub Scout according to the Cub Scout Year. If none of these rules apply, contact the event chairman for direction. In these rules the terms "Cub Scout Year" and "age group" are synonymous. The 5th-grade Arrow of Light category includes new 5th grade Boy Scouts who participated with their Packs this school year.

G-3. Attendance: Only the Cub Scout may enter his car. This means that the Cub Scout must be present to enter his car into competition.

G-4. "New Work": Construction of entries must not have begun before the previous year's Sons of Liberty District Pinewood Derby Races.

G-5. Single Entry per Car: No car may be entered in two (or more) events.

Qualification:

Each Pack may enter no more than one Scout from each Cub Scout Year: Lion through Arrow of Light (formerly 2nd-year Webelos). In case of absence, a Cub from the same Pack in the same Cub Scout Year may be substituted on the day of the race. The substitute must race his own car. No Cub may race two cars.

Technical Standards:

The inspection judges at race-day check-in are responsible to evaluate each car's adherence to the technical standards. Their decision may be appealed to the inspection chairman and the event chairman, who, after consultation with the inspection team, the SCOUT, and his parent/assistant, shall render a final, binding decision.

T-1. Material: Race cars shall be constructed for this event from the parts contained in the Official Grand Prix Pinewood Derby Kit (referred to below as "the kit") as sold by the Scout Shop. Materials from the kit may be supplemented but not replaced.

T-2. Weight: Racecars may weigh no more than five (5) ounces (total weight) as determined on the official scales during race day inspection.

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. The axle dimensions may not be changed substantially, nor may the length of the wheelbase be changed from what is provided in the kit. The outside surface of the axle head (the non-contact surface) may not be changed substantially, such as, by polishing. It must be obvious to the judges that the wheels and the nails from the kit are being used.

T-4. Size: Racecars may be no longer than 7 inches, nor wider than 2 3/4 (2.75) inches, nor taller than 3 inches, as determined by the official gages during race day inspection. (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 is recommended, so that the car will run on the racetrack. Adequate clearance is the responsibility of the racecar builder.)

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 weights must be securely fastened to the car, e.g. by permanent glue, nails, screws or tape. Weights shall be passive, i.e. non-moveable, non-magnetic, non-electric, non-sticky, etc.

T-6. Wheels: Wheel treatment (hub and tread smoothing and polishing) may not result in removal of mass nor in reducing the tread (track contact) width from the original kit wheels. Wheel tread surface must be cylindrical. The words "Official B.S.A. Made in U.S.A." and other lettering on the wheels shall remain intact and clearly visible to the inspector. The original "tread marks" on the wheel face must be intact, i.e. apparent to the inspector.

3

T-7. Unacceptable Construction: The following may NOT be used in conjunction with the wheels or axles: hubcaps, washers, inserts, sleeves, bearings. Also, all four (4) wheels must be able to touch the track surface. The length of the wheelbase may not be altered from that provided in the kit.

T-8. Gravity Powered: The racecar 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.)

T-9. Lubricants: Lubricants must be dry at the time of inspection and racing. Only dry graphite (white of black) may be used – NO liquid lubricants are allowed.

T-10. Staging: The entire car must stage behind the starting pin.

T-11. Body: The car body may have no moving parts.

Conduct of the Races:

Track officials are responsible for the proper conduct of the races. Decisions of track officials on questions of rules interpretations and procedure may be appealed to the event chairman. Decisions of track officials on questions of fact may not be appealed beyond the track chairman.

Scouts, AND PARENTS, should also be familiar with <u>these</u> rules.

C-1. Inspection Gages: All inspection will be conducted by one team at a special inspection area using scales and gages approved by the event chairman. ***Please stress this fact to all members of your Pack:*** They should be prepared to make adjustments to their cars if necessary.)

C-2. Impounding: Once the car has passed inspection and received its number sticker, track officials will place each car on the table provided. The car must not be lubricated or otherwise improved until racing is complete.

C-3. Car Handling Responsibility: Scouts shall be responsible to retrieve their cars at the finish line (after the race has been called) and return their cars to the pit after their heat is finished. If, in the opinion of the track chairman, a Scout's physical limitations prevent him from fully complying with this requirement, the Scout may nominate an assistant of approximately the same age who serves subject to approval of the track chairman. In any case, the Scout shall participate up to his limitations.

C-4. Lane Assignment: Lane assignment for each heat shall be determined by the computer program utilized.

C-5. Car Repair: 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. The SCOUT may seek advice for repairing the car, but may receive no other assistance. If a car is damaged due to track fault or due to fault of another car or SCOUT, then the track chairman, at his sole discretion, may allow additional repair assistance.

C-6. Car Interference: If, during a race heat, a car leaves its lane and, in so doing, interferes with another racer, then the car at fault shall be declared to have lost the race heat. (However, see C-9.)

C-7. 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. (However, see C-9.)

C-8. 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. (However, see C-9.)

C-9. Track Fault: If a car leaves its lane, at his sole discretion, the track chairman may inspect the track and, if a track fault is found which probably caused the initial violation, the track chairman may order the race heat to be rerun after the track is repaired.

C-10. No Finishers: 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.

C-11. Call to Race: Competitors will be called to race "by group", i.e. racers who have comparable records. If a racer leaves the area and rejoins the group after it has started its heats, placement in line is at the track chairman's discretion.

C-12. Appeals: The Cub Scout must promptly make all questions of rules interpretations, procedure and fact to the track officials.

C-13. Opponent Assignment: Until the finals, Scouts will be grouped and assigned lanes at random by the computer program utilized.

The Racing Environment:

R-1. Track Length and Drop: The track shall have a racing surface (starting line to finish line distance) of approximately 28 feet with a drop of approximately 5 feet.

R-2. Track Slope: The track slope shall decrease from approximately 30 degrees at the starting line to approximately 0 degrees at the finish line.

R-3. Lanes: The track has 4 lanes. Each lane will consist of a straight, smooth plastic roadbed bordered by a plastic fence on each side so that each racecar will be running in its own lane which has a smooth surface no less than 4 inches wide..

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

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

R-6. Finish Line Judging: The track's electronic finish line sensor may serve as one of the judges.

R-7. Lane Selection: If the track has more lanes than needed, the track chairman shall select the most evenly matched lanes for use by the racers. Because tracks frequently change their characteristics due to details of setup, the determination will be made after the track has been set up and made ready for racing on race day.

R-8 Finish Line Electronics Sensitivity: Track Finish Line Electronics, if used, must trigger correctly if a lead pencil is passed 3/4 (0.75) inch above the track surface at a speed of 15 feet per second.

R-9. Finish Line Clearance: Track Finish Line Electronics and other track accessories, if used, must be no closer than 3 inches above the track.

Format Summary: 4 racers per heat.