

# Powder Puff Derby Rules



## GENERAL RULES

1. Girls must be registered Girl Scouts at the time of the Derby.
2. Cars must be made by the girl with adult assistance as described in the Age-Appropriate Car Construction Guidelines.
3. No car will be entered that has been made or used in previous years.
4. Only one car per girl may be entered.
5. Speed awards level and two awards for car design; girls can not win for both speed and car design.

## OFFICIAL CAR CONSTRUCTION RULES

1. The car must be built using the wood and axles provided in the official BSA kit. If substituting black wheels in the kit for BSA colored wheels, continue to use original nails for axles from kit. **No pre-made/pre-cut car kits are allowed.**
2. Detailing and accessories such as steering wheels, drivers, decals, weighs and painting are encouraged as long as the additions do not conflict with any other rules.
3. Unfortunately - Weight fine-tuning may NOT be accomplished at car inspection this year. All weights must be secured to the car. Mercury may not be used. Under mounted weight should be recessed for 3/8" track clearance.
4. Only powder graphite may be used to lubricate the axles. Lubrication may only be applied prior to car inspection.
5. Front of car must have a minimum center flat surface of 1/2 inch in horizontal width to provide a stable point of contact with the racing pin located on the track. If car is unable to rest on the racing pin properly the Derby Officials have the authority to race the car in the backwards position.
6. Width between wheels should remain 1 3/4 inches to fit properly on track.
7. The car will not be altered in any way once it is inspected.
8. Write girl's first and last names on the bottom of the car in marker.
9. During car inspection the night before race day the car will be checked for the following items:
  - The car weight does not exceed 5 ounces or 141.75 grams. The official race scale weight shall be considered final.
  - Paint is dry, no sticky surfaces, or loose items which could fall on the track.
  - Wheels may be lightly sanded for roundness, but not beveled, turned, thinned, etc. The wheels can be sanded as indicated in the instruction sheet that comes with the car kit.
  - No wheel bearings, washers, or bushings have been used.
  - The car will not ride on any type of springs and must be free-wheeling without any starting devices.
  - Space between axles must be visible for verification purposes; do not cover with weights or any other non translucent substance. If no space is visible you will need to remove 2 wheels (one front and one rear) for verification purposes.
  - The distance between the front and rear wheels has not been altered from that of an official BSA kit, 4 3/8 inches. The original predrilled axle slots must be used. Do NOT nail the axles into the wood (axles must be visible for inspection).
  - Clearance between bottom of car and bottom of wheels is to be no less than 3/8 inch; it is recommended that weight added to the bottom of the car be recessed in order to meet the minimum requirement.
  - Length does not exceed 7 inches.
  - Width does not exceed 2 3/4 inches.
  - Height does not exceed 4 inches.

## RACING INFORMATION

1. The car inspection and race day schedules will be developed by the Derby Coordinators and schedules will be posted on the website (<http://www.williamsburggirlscouts.com>) and/or emailed.
2. Friday evening will be the official car inspection. Car inspection will consist of weight check, dimension check, and visual check of car looking for things not in accordance with the construction rules listed above. Cars passing inspection will be impounded until race day. Cars not passing inspection will be impounded and permitted to race, but not eligible for any awards. Derby Coordinators have the final ruling in upholding the rules set forth above. **There will be no car inspections on race day.**
3. There will be no practice heats for any cars.
4. Race will consist of heats running 3 cars at a time. Each girl's car will have the opportunity to run in 6 heats; twice down each lane of the track. The lowest time is discarded and the other 5 averaged.
5. If any part of the car breaks during racing, and since the girls are not in attendance, a race attendant will attempt to "fix" and then perform a repair. The car may only be repaired one time. A second breakage will result in the car being withdrawn.
6. If a car jumps the track, runs out of its lane, interferes with another car, loses an axle, etc. the heat will be rerun. If the same car gets into trouble on the second run, at no fault of the track, the car is then eliminated from that particular heat.
7. Awards will be given out for the fastest cars and 2 cars for design. Each girl will receive a participation patch.

## GENERAL GUIDANCE FOR CAR BUILDING

1. If you need help with or have questions about any aspect of the construction, rules, contact the Powder Puff Derby Coordinators @ [powderpuff140@gmail.com](mailto:powderpuff140@gmail.com). Experienced Derby parents will also be willing to help you.
2. Intent of this program is for the girl to build her car, with the help of an adult (not the other way around). If a car design requires major cuts using a power tool, an adult can make these, but the majority of the car should be cut, sanded, finished by the girl. The girls learn more when they do it themselves.
3. Each Powder Puff Derby entrant was provided with one official BSA Pinewood Derby car kit. In the event of an "oops", additional official kits may be purchased at the Boy Scout Shop in Newport News. **DO NOT PURCHASE CARS OR WHEELS FROM HOBBY SHOPS. ONLY OFFICAL BSA CARS/PARTS MAY BE USED!**
4. Many websites offer advice on designing and building a car. Searching by the term "Pinewood Derby" yields many hits; however, this information should only be used as guidance and should not conflict with official rules.

### Age- Appropriate Car Construction Guidelines

GS Age Level	The Girl Scout should...	Dad should...
Daisy	Create car design & car name Sand & Paint Accessorize	Follow Official Car Rules Operate power tools Assist with sanding/painting Measure & insert weights Attach & align wheels
Brownie	Create car design & car name Sand & Paint Measure weights Accessorize	Follow Official Car Rules Operate power tools Insert weights Attach & align wheels
Junior	Create car design & car name Limited use of power tools Sand & Paint Measure weights Accessorize	Introduce 'Physics of the Derby' & assess car design Follow Official Car Rules Operate/supervise power tools Insert weights Attach & align wheels
Cadette/Senior/ Ambassador	Follow Official Car Rules Create car design & car name Moderate use of power tools Sand & Paint Measure & insert weights Accessorize	Explore 'Physics of the Derby' & assess car design Supervise/operate power tools Supervise attach & align wheels