

Pinewood Derby Check-In (Findley Cafe)

- **Friday, January 25, 7:00 pm to 8:00 pm – ALL cars must be inspected and collected on this day!**
- **A test scale will be at Findley Office starting Friday, January 11th**

Pinewood Derby Race Day (Findley Cafe)

- **Saturday, January 26th 9:00 am to Last Race + Awards. (~12pm)**

Guidance on “The Build” and Racing:

Make sure your Scout helps design and build their car. Remember, it is **their** car and they should have pride in making it. There are many steps in building a car that your Scout can learn. Pinewood derby is about the journey and accomplishing whatever goal you choose to set for yourself. Time spent between Scout and parent from concept to build and display on race day can be the most important benefit. Parents, be patient. Younger Scouts will need more guidance and lots of help. Older Scouts are encouraged to do more of their build with parents just supervising. There are numerous resources on the web/at the library about how to design/build a pinewood derby car from very basic to super advanced. Be sure to role-model by following the rules and practicing good sportsmanship at all times. Having a self-built car to enter in the derby is better than not entering at all. Make sure the build process and race stay positive and FUN!

Good article with guidance about the balance of Parent and Scout involvement in PWD car building:

<https://blog.scoutingmagazine.org/2016/02/12/a-parent-helped-build-that-pinewood-derby-car-yes-thats-the-whole-point/>

Pinewood derby reference from Boy's Life Magazine - <https://boyslife.org/hobbies-projects/projects/2952/speed-secrets/>

Check-in/Weigh-in Day:

- **All cars must be checked in on weigh in day. No cars will be accepted on race day.** This is necessary because derby setup for racing heats must be completed ahead of time and cannot be modified the day of the race.
- Cars will be inspected to verify they meet required specifications and rules.
- **Once cars are checked in Scouts will not get them back until after the Race.** Cars are collected by Pack leaders and will be brought to the race.
- **Cars from previous years will not be accepted for Standard Class** (i.e. not eligible for awards). The goal of PWD is for Scouts to go through the experience of building something and have pride in racing their new creation each year.

Competition Rules:

1. Scouts may enter only one car in the “Standard class”. This car is eligible for the speed awards.
2. Scouts may enter a second car or a popular voting only car in the “Trick/Unlimited” class.
3. Family members are welcome to enter a car in the tricked/unlimited class.
4. **Cars from previous years will not be allowed.**
5. The track will be set up for test runs during the check-in period as long as we have sufficient setup volunteers to supervise it. However, cars will only be allowed to run one at a time and there will be no timing. Scouts be advised that you run the risk of damaging your car if not carefully handled when doing test runs.
6. Inspections
 - a. Your car must be checked-in with a qualifying inspection to ensure it meets all required specifications.
 - b. If your car does not pass inspection, it will need to be modified / repaired and re-inspected. If you do not make the needed modifications to bring it back into spec, the car will not be eligible for the “Standard Class”.
7. Repairs/Modifications
 - a. A Repair station will be available. Parents or adult leaders must assist a scout in use of supplies or tools.
 - b. After a repair the car must be re-inspected before it can be checked in.
 - c. On Race Day, repairs will only be permitted if a car is rendered disabled due to some mechanical failure. The car must be re-inspected before re-joining the race and may miss some heats as a result.
8. When your car passes inspection, and is checked-in, it will be assigned a race number.
 - a. The race number will not be the same number you may have put on the car.
 - b. The race number will be on a sticker that we attach somewhere on the front of your car.
9. After your car is checked-in, **your car will be impounded until race day.**
10. During the race your car will be handled by the race committee only.
11. **There will be no re-lubricating wheels during repairs or at any other time after your final check-in.**
12. For the protection of the track, no one is to cross over any part of it. Obey the caution tape boundaries.
13. Race coordinator's decisions are final on any matter pertaining to the race.

Race Format:

1. Cars shall be raced at least four times: once in each lane.
2. Each heat will match cars randomly (as determined by our race software).
3. Times will be recorded by the racing software from our automated timing system.
4. **Lowest average time determines the winner and overall finish order.**

Rewards and Recognition:

1. The most important values in our Pinewood Derby competition are having fun, parent/child participation, good sportsmanship, and learning how to follow rules.
2. Every participating scout will receive a ribbon.
3. Trophies will be awarded for Overall 1st, 2nd, and 3rd in the Pack
4. Trophies will be awarded for 1st, 2nd, and 3rd in each Rank and overall for the Pack.
5. Awards for concept and craftsmanship will also be given by popular vote for each rank and overall. **All Scout entered cars (as opposed to parent entries) are eligible for these award categories.**

Specifications for “Standard” class:

Length, Width, and Clearance

1. The length of the car (including wheels) is not to exceed 7 inches. The block of wood is exactly this length, make sure nothing (including wheels) sticks out past the original block length and you'll be fine. It is legal to extend the wheelbase of the car.
2. The overall width of the car (including wheels) is not to exceed 2.75 inches.
3. The height of the car is not to exceed 4 inches. (Ensures sufficient clearance under the track timer)
4. The minimum width between wheels is 1.75 inches
5. **The car shall have a minimum ground clearance of 3/8 inch. (Essential, otherwise the car will drag on the track and not be race-worthy. Ensure nothing hangs down like weights, glue, etc...)**
6. No part of the car can extend beyond the starting gate at the start of the race. (i.e. as a result of a notch in the front of the car)

Weight and Appearance

1. The weight of the car is not to exceed 5.0 ounces **as measured by the pack scale.** The weight displayed by the pack scale must be stable at 5.0 ounces or less. (Note: 9 tablespoons of water is roughly equivalent to 4.7 ounces, excluding the weight of the container)
2. The car **must** be built from the block(s) of wood from the official scout kit. Bodies may be shaped, hollowed out, or built up from the original block of wood. 2 pieces of wood can be combined for more interesting designs, but must still meet specs.
3. Accessories (can be creative here!) and/or weights **must** be attached permanently with glue or screws. Tape, paper clips, etc. will not be allowed as a means to attach accessories. **Note that if you attach weights to the bottom of the car they need to be recessed into the block or they will drag on the guide rail of the track.**
4. No liquids or “loose” materials of any kind are permitted on the car. Note this rule applies to wet paint on the car.

Wheels, Axles, and Lubrication

1. The car **MUST use the axles and wheels from the official scout kit.**
2. **No** springs, bushings, washers, etc. may be used with the axles or wheels.
3. The wheels must be freewheeling.
 - a. No “starting” or propulsion devices are allowed to help propel the car.
4. Wheels may be sanded or smoothed.
 - a. Wheels may not be turned on a lathe and must retain their full original width in contact with the track.
 - b. Specially prepared wheels and/or axles cannot be purchased over the Internet or from any other source.
5. **Lubricants are not allowed at the school during check in, or at the venue on race day.**
 - a. A car must not leak lubricants of any kind at check-in or on the track during a race.
 - b. Liquid lubricants are not allowed. Only graphite or powdered Teflon will be allowed, and **only before bringing your car to the school.**
6. Wheelbase may be altered as long as the wheels do not extend beyond the car body.
7. Axles may be sanded and/or polished. Hubcaps are not permitted.
8. **All 4 wheels need to rest and roll on a flat surface.** No raised wheels. Test this ahead of time so you don't have to adjust later.

Specifications for “Trick/Unlimited” class:

1. Cars not meeting rules for the “Standard” class will race in the “Trick/Unlimited” class. Adults/Siblings may enter in this class.
2. **Cars in this class will not be eligible for den or pack speed awards, but WILL be eligible for popular voting categories.**
3. Wheels and axles may be turned on a lathe. - Specially prepared wheels and axles may be purchased from other sources.
4. **Cars more than 2oz over weight (i.e. 7.0 oz total) will not be allowed to race due to the potential for damage to the track.**
5. Cars whose dimensions exceed the specs so much as to interfere with adjacent cars on the track will not be allowed to race.
6. Use of multiple blocks of PWD car kit wood and extra wheels are acceptable.