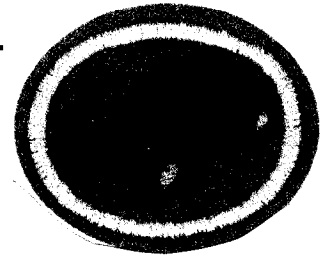


Pinewood Derby



1. Name the four basic components of a Pinewood Derby car.
2. Cars must meet the basic following requirements:
 - a. Must be made during the current calendar year or Pathfinder club year.
 - b. Width of car shall not exceed 2-3/4" or 70 mm
 - c. Length of car shall not exceed 7" or 178 mm
 - d. Weight of car shall not exceed 5 oz. (142 grams)
 - e. Width between wheels shall be 1-3/4" or 44 mm
 - f. Height from bottom of car to bottom of tires shall be 3/8" min. or 10 mm
 - g. Use only axles, wheels, and wood provided in the kit you purchase.
 - h. Wheel bearings, washers, and bushings are prohibited.
3. Know how to use safely the following while building your project:
 - a. Saw
 - b. Wood rasp
 - c. Course sandpaper
 - d. Fine sandpaper
 - e. Wood plane
 - f. Hammer
 - g. Shaping stick
4. Know the basic steps in designing a car:
 - a. Design
 - b. Transfer of design
 - c. Building the car
 - d. Axles and wheels
 - e. Adding weight
 - f. Lubrication
5. Design and build to completion a Pinewood Derby car from a basic kit using the instructions in the kit or if no instructions, follow the directions in # 2.
6. Participate in a sponsored Pinewood Derby event using the car you built in number five (5).
7. Define and practice good sportsmanship as it relates to your Christian walk.

Note: If you are planning to participate in a conference Pinewood Derby event be sure you use the correct specifications from your conference because some use different specifications than listed above.

Where to Order:

S & W Crafts Manufacturing	or	Pine Car
PO box 5501		PO Box 98
Pasadena, CA 91117		Linn Creek, MO 65052

Note: Pinewood Derby cars are usually available through the Boy Scout organization.

Skill Level 1

Original Honor 1999
Arts, Hobbies & Crafts
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North American Division

Pinewood Derby, Advanced

1. Have the Pinewood Derby Honor.
2. Know the Pinewood Derby race regulations for your district, area, or conference. NOTE: Many conferences have special Pinewood Derby events and the rules may vary as to length, weight and wheels.
3. Be aware of the following:
 - a. Cars shall not ride on any kind or type of springs.
 - b. No loose materials of any kind are allowed in or on the car.
 - c. Official number must be clearly marked and visible.
4. Review tool safety.
5. Know the various ways to prepare and finish your project:
 - a. Sanding wood
 - b. Filling holes
 - c. Sealing new wood
 - d. Coloring wood
 - e. Gloss finishes
 - f. Enamel finishes
 - g. Stain finishes
 - h. Wax finishes
 - i. Acrylic finishes
 - j. Water colors
 - k. Leather look on wood
 - l. Decoupage
 - m. Forged foil
6. Know the principle meaning of friction and how it can effect the performance of your car.
7. Know the three best ways to reduce friction on your car.
 - a. Axle lubrication
 - b. Aerodynamic design
 - c. Smooth finish
 - d. Proper wheel/axle clearance
 - e. Reduce wheel shaking
8. Know the three theories of weight distribution and how it could affect the performance of your car.
9. Design and build to completion the following (not previously build):
 - a. Basic car kit with complete exterior finish
 - b. Deluxe/fancy car kit with complete exterior finish and decals
 - c. Be creative by building one of the following: tank, submarine, airplanes, piano, ice cream sandwich, fire engine, vege-link, school bus, baby carriage, and etc.
10. Use details on your project such as steering wheel, driver, decals, and etc. as long as these details do not exceed the maximum length, width, and weight specification.
11. Participate in a club, district, or conference sponsored Pinewood Derby event with a current car.
12. Define and practices good sportsmanship as it relates to your Christian walk.