

RACE TIME

ELECTIVE ADVENTURE



SNAPSHOT OF ADVENTURE



In this Adventure you will design and build your own Pinewood Derby car or Raingutter Regatta boat. As an Arrow of Light Scout, you will mentor younger Cub Scouts on design, building, and good sportsmanship.

REQUIREMENTS

Approved by

1. With adult supervision, build either a Pinewood Derby® car or a Raingutter Regatta™ boat. _____
2. Learn the rules of the race for the vehicle chosen in requirement 1. _____
3. Mentor a younger den to prepare for the race. _____
4. Before the race, discuss with your patrol how you will demonstrate good sportsmanship during the race. _____
5. Participate in a Pinewood Derby or a Raingutter Regatta. _____



- Elective Adventure
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REQUIREMENT 1

With an adult, build either a Pinewood Derby car or Raingutter Regatta boat.



Building a Pinewood Derby car or Raingutter Regatta boat is a fun way to spend time with your patrol or family. Here are some basic instructions on how to make these fun vehicles. You may find more advanced tips and tricks with your patrol or family online.



PINEWOOD DERBY CAR

A Pinewood Derby car is made out of wood and runs on a downward track. The car uses the force of gravity to run down the track. Read all the basic instructions first before starting to make your car.

Materials and Tools

- ▶ Pinewood Derby car kit
- ▶ Saw
- ▶ Hammer
- ▶ Sandpaper (200 grit)
- ▶ Paint
- ▶ Paint brushes

Instructions

1. Draw a design for your car.

Take the block of wood in your Pinewood Derby car kit and place it on its side. Draw an outline of the wood on paper. Now draw the profile (side view) of your car.



2. Cut out your car from the block of wood. You can use a

handsaw or you can have an adult use a power tool to cut it out.



3. Sand your car. Sanding will remove any sharp corners and will allow paint or any other decoration you add to your car stick better.

4. Paint and decorate your car.

Pinewood Derby cars are made of soft wood and when you paint them, it may take a couple of layers or coats of paint. Paint the car once and then, when the paint is dry, use sandpaper to lightly sand it. Clean off any dust from sanding and paint it again. You can repeat this over and over until you get the look you want.

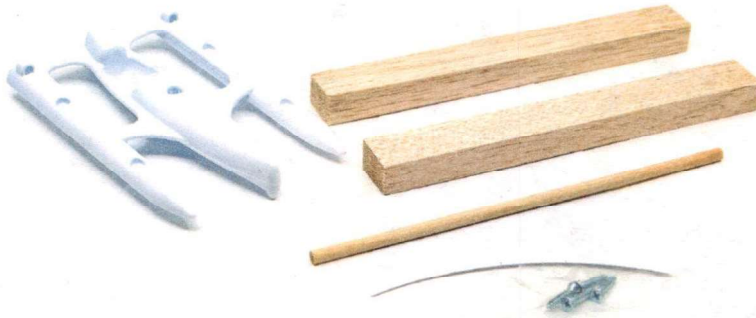


5. Assemble your car. Using the nails that came in your kit, attach the wheels that came in the kit to the car in the pre-cut areas on the bottom of the car.



6. Check the weight. Do this step last as everything else you do will either add or subtract weight from your car. You want your car to be exactly 5 ounces. If it weighs less, you can simply glue pennies to the car to get it just right.

Here is a tip. Make sure your axles are square, at a 90-degree angle. This will keep your car straight when going down the track. If your axles are not square, your car may turn and rub up against the track, causing it to slow down. You can test your car by simply pushing it across the floor to see if it goes straight.



RAINGUTTER REGATTA BOAT

The Raingutter Regatta kit comes with everything you need to make your boat. The Raingutter Regatta boat is raced in either a homemade track by capping the ends of two 10-foot-long rain gutters or an inflatable track your pack may buy. Two Cub Scouts race their boats by blowing into the sails.

Materials and Tools

- ▶ Raingutter Regatta kit
- ▶ Phillips head screwdriver
- ▶ Sandpaper (200 grit)
- ▶ Paint
- ▶ Paint brushes
- ▶ Glue

Instructions

1. Sand the wooden hulls. It is easier to sand the wooden hulls before you assemble your boat.



2. Attach the plastic cabin to the two wooden hulls.

3. Paint and decorate your boat. If you're painting, it's best to use a primer first; this will help the paint stick to the plastic parts of the boat. You can decorate the sail too.

4. Assemble the sail and mast. Use a small bit of glue in the hole where the mast will go, then place the mast into the hole. Allow the glue to dry before you attach the sail.



Here is a tip. You can add wax to the bottom of your boat, called the hull, to make it extra smooth. The smoother the hull, the faster your boat can go.

REQUIREMENT 2

Learn the rules of the race for the vehicle chosen in requirement 1.

Rules are important so that everyone knows how to play. The rules to the Pinewood Derby or Raingutter Regatta should be kept short and simple so everyone can know and understand them. Rules for the Pinewood Derby and Raingutter Regatta are included in each kit. You can also find the rules online by following one of the below QR codes.



Pinewood Derby



Raingutter Regatta

Your pack may have additional rules. You should ask for these rules before you start building. Most of the rules about Pinewood Derby and Raingutter Regatta are about what you can and cannot do when building your car or boat.

Next is knowing how your race will be conducted. You may have a race with just the members of your patrol first and the winner of each den or patrol competing for the pack championship. Your pack may run races based on the fastest time. Understanding how your pack will conduct the race will help you understand what is going on during the race and how many times you might be racing.

REQUIREMENT 3

Mentor a younger den to prepare for the race.

Ask your den leader to identify a younger den that your patrol can mentor. There are several ways you can mentor a younger den. Here are some examples. You can pick one or several.

- ▶ Help a younger Cub Scout design their car or boat.
- ▶ Provide tips on how to build a car or boat that goes fast.
- ▶ Provide tips on how to decorate their car or boat.
- ▶ Explain the rules of your pack's Pinewood Derby or Raingutter Regatta.



REQUIREMENT 4

Before the race, discuss with your patrol how you will demonstrate good sportsmanship during the race.



Having a good time building your car or boat is what really matters. Just like any race, there is going to be someone with the fastest car or boat. Remember that the race is done to add excitement and fun. If you worked hard on your car or boat and can say that you did your best, then you have lived up to the Cub Scout motto — Do Your Best.

Think about the Scout Oath and the Scout Law. With your patrol or family, point out the parts of the Scout Oath and the Scout Law that will be helpful for everyone to follow during the race.

REQUIREMENT 5

Participate in a Pinewood Derby or a
Raingutter Regatta.

It's race day! Time to take everything you have learned in this
Adventure and have a great time with your patrol or pack.

