

Northglenn Pirate Fest

Cardboard Regatta Rules

Every pirate needs a pirate ship and the Northglenn Pirate Fest wants its crew to build their own vessel to sail the seven seas (or maybe Webster Lake for this year). Please read through the attached rules, which cover usable supplies, proper boat building, competition information, as well as information for the weekend of the event.

Each group building a boat will need to register. Registration will be accepted up through the Pirate Ball on Friday, September 18 but pre-registration is preferred.

The Cardboard Boat Regatta is all about creativity, competition, and innovation in boat building skills. Above all, the regatta is about fun both during the boat building process and on the day of the race.

Rules

1. The entire boat must be built from cardboard. Only corrugated cardboard may be used. It may be of any thickness but cannot be bonded to any other material such as vinyl. Non-corrugated material may not be used, especially the kind of resin or wax-type coating found in packing cases, unless for decoration only.
2. Wood, metal, Styrofoam, rubber inflatable devices or other materials that would provide buoyancy and/or other materials that would aid in flotation or make the hull rigid are prohibited. This applies to the keel, transom, ribs, hull, etc.
3. No sandbags or similar materials may be used for the ballast.
4. Joints and seams may be glued and/or taped. Duct tape, contact cement, rubber cement, or construction adhesive may be used. No nails or metal or wood fasteners or staples may be used in the final construction of the boat. Keep the crew's safety in mind on race day while you are building your boat.
5. Hulls may be painted with any "one-part" paint. No epoxy glues, fiberglass resins or "multi-part" varnishes or paints may be used.
6. Hulls must not be "wrapped" in plastic, duct tape, or anything else. Tar based substances like roof coatings are not permitted.
7. The crew compartment **CANNOT** be enclosed. Crewmembers must be able to make a quick escape should the boat not float. Remember you are building a boat and not a submarine... Each crewmember must be visible.
8. Decorations are both allowed and encouraged. That being said they must not be used as structural or flotation elements. Decorations do not have to be strictly cardboard. They just cannot be used to strengthen or help float the boat.
9. Only seams and joints may be taped, not the entire boat.
10. Absolutely NO use of the following items: Tar-based substances, two-part varnishes, fiberglass resin, epoxy glue, any other two-part substances, or corrugated cardboard that's bonded to any material.
11. To qualify as a finisher in any heat, you must be IN your boat, not towing it in your teeth or between your legs.
12. No more than six humans allowed in any boat. All crews must consist only of friendly and reasonably warm-blooded characters.
13. All boat occupants must wear a properly fastened life jacket while in the boat or water (we provide, but if you have one feel free to bring it – we can use extras).
14. Boat occupants must wear shoes with a substantial sole. No flip flops allowed.

15. If you've been drinking alcohol (or using other substances that may impair you), you'll be banned from racing. Drinking can resume once race is complete.
16. If you don't want to take your boat home after the race, you **MUST** put it in one of the waste dumpsters in the parking lot on the West side of the lake. Please do not leave your boat on the grass in the festival area.
17. All boats are subject to a technical inspection for compliance with these rules. A boat must pass inspection to be eligible for any award or prize. You will have a chance to fix a violation and be re-inspected.
18. Each boat must carry a closed gallon plastic jug (or PFD) with 15' rope tethered firmly secured to the vessel. **Dingy Class** (1 to 2 jugs), **Corsair Class** (2 to 3 jugs). Gallon jugs are to remain inside boat while racing; they are not to be used as flotation for the vessel. This is for use in locating and retrieving any sunken remains.
19. Boats are subject to inspection and disqualification for any violation of one or more of the rules. Every attempt will be made to bring the boat into compliance prior to the disqualification.
20. Every crewmember must sign a "Hold Harmless" release before the race.
21. One legitimate dewatering device may be used to remove water from the vessel.
22. Sunken or discarded boats must be disposed of in designated trash receptacle.
23. Contestants are not allowed to use any substance that might be harmful to the environment.
24. Be creative and have fun!

Supplies – The approved supplies in the building of your boat are as follows:

Corrugated cardboard, carpet tubes, cardboard blocks can be found at recycling centers, appliance stores, department stores, discount clubs and electronics warehouses.

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Boat Building Tips

A wise man said it is not the destination but the journey that counts! Half the fun of the Cardboard Regatta is actually building the boat. The first and most important element of proper boat design is using creativity. So it really is more like, "If you can think it, you can float it!!"

Step 1-Materials

Since this is a Cardboard Regatta, one would assume the most basic ingredient would be...cardboard. You should immediately start to gather materials. Refrigerator boxes are like gold! Try local sources, businesses that package or receive large items. Who uses large amounts of cardboard? How about Costco or Sam's Club? Furniture stores? You can get cardboard "blocks" that protect items in shipping. Cardboard tubes such as carpet or flooring tubes are permissible, but Sona-tubes or waxed and treated tubes are not! Small boxes? Glue them together to make a larger piece!

In this type of construction, duct tape is your friend! Duct tape, masking tape, construction adhesives, paint and varnish are your building blocks. Obviously no metal, metal fasteners, wood, plastic, fiberglass, etc.

Step 2-The Plan

First you admit...there is no plan! No step by step procedure to follow. No "kit" or design to buy and assemble. You just have to "wing" it! There is no right way to build this. That's good! It means there is no WRONG way! Creative problem solving is the norm here. Combine creativity with some fun and you have a winning combination! While there is no fill-in-the-blank instruction, there are some helpful hints.

Remember sitting in those science classes telling yourself..."Why can't I just sleep? I mean when will I ever use this stuff?" Guess what? THIS is one of those times that you could use that stuff! So how about a little refresher? Here's science stuff that can make your design a little easier...

THE SCIENCE STUFF

First question people have is "how can a cardboard boat even float?" Have you ever seen a cruise ship? It is a floating city, with emphasis on floating. It weighs almost 72,000 TONS! So how can it float? It's called **displacement**. Water weighs 62.4 pounds per cubic foot.

So basically, a boat that is 1 foot by 1 foot by 3 feet will float 180 pounds! This explains how they can even make a boat out of concrete!

That size boat may be a bit uncomfortable but it shows how much boat is necessary for each person. Try not to overbuild. It will make the boat too difficult to maneuver.

Science aside, let's decide on a basic shape for your boat. How about some helpful hints?

Flat bottomed boats are most favored due to stability. Also, the lowest point of gravity is going to be the most stable. Kneeling or standing might look cool, but you are much more likely to need swimming lessons! Here are some basic shapes:

Design hints:

- Longer boats go faster, but they are harder to turn.
- Boats shorter than 10 feet are difficult to steer.
- Watch your center of gravity, if you are too top heavy you will topple over.
- For height: allow about 18 inches so you can comfortably sit and paddle effectively.
- For width: figure about 30 inches for one person. 48 inches for two people.
- Save a LOT of time; play around with a mock up model using cut up manilla folders. It is a great way to practice your design. You can fold, re-fold, cut it up, glue it together and try several ideas in small scale before you waste your time and material on full scale. Sometimes great sounding ideas just don't work. Better to learn this now!

Step 3-Build

Now armed with a basic idea and hopefully a cool model, it's time to go big! There are some simple tricks when you are working with the cardboard. Try not to damage or dent the corrugations, as that will compromise the strength. Try folding the cardboard with the "grain" of the corrugations as it will fold much neater. Score your lines before folding using the handle of a butter knife or similar type edge to make a much neater crease.

Increase strength without adding weight by laminating layers of cardboard. Alternate each layer's "grain" to also increase strength. Try spreading glues with brushes and rollers as it makes a much tighter joint. Spring clamps can be invaluable to help hold the boat together while the glue sets. It is best to use tapes for covering joints, not for keeping them together.

To keep the cardboard dry, seal the edges. Water will get drawn into the corrugations just like a drinking straw. Keep in mind...most boats sink due to cracks in the hull, not water seeping through the cardboard. Being able to make the boat as sturdy as possible is crucial.

Step 4-Paint

When painting a boat, start off with a primer first. Cover exposed tape with masking tape or something similar; duct tape will shrink when exposed to paint. After priming, applying numerous coats of latex paint can really help in waterproofing your boat. Try to paint both inside and out to prevent your cardboard from getting soggy.

Step 5-Decorate

After your base coats are applied, it is pure decoration from there. Try to be creative and make something you will enjoy!