

## Basic Rules

- 4 people must ride in the boat – 1 must be an adult
- Ages 12 & under must have lifejacket
- Must go around buoy and back to shore
- Winners will be determined by a point system

## Construction Materials

- Cardboard
- Tape
- Paddles and Oars
  - No foam, no plastic, and no wood allowed in building your boat! You may not wrap the hull in tape, plastic, shrink wrap or any other material. There are no restrictions placed on decorative materials as long as they do not aid in the flotation or propulsion of the boat and do not create a safety hazard. Stay away from stuff that is toxic, either for you or for the environment. Boats will be subject to a technical inspection before the race and must adhere to these guidelines. Any boat not following these guidelines will not earn points. Exception: you may use wooden oars or plastic paddles.

## Point System

- This year, we will be scoring boats using a point system. This allows all participants an equal chance of winning.
  - Boat Materials – 40 points  
all points will be awarded if they use proper construction materials
  - Decorations – 1<sup>st</sup> 25 points, 2<sup>nd</sup> 15 points, 3<sup>rd</sup> 10 points, everyone else 5 points  
park members will be able to vote on the Facebook Page
  - Finish Line – 1<sup>st</sup> 30 points, 2<sup>nd</sup> 15 points, 3<sup>rd</sup> 10 points, everyone else 5 points  
participants will get points for getting their boat all the way to the finish line with all members on the raft.
- **Bonus Points**
  - Best Dressed – 10 points  
team with the best outfits will earn additional points, this will be determined by Rec Staff.
  - Guest Appearance – 10 points  
Convince a park representative to be your team's cheerleader (board members, PSO, golf course, administrative staff, park & garden or maintenance – cannot be related to you)
  - Team Anthem – 10 points  
Come up with a team chant, song or slogan to sing while rowing out.

## Race Day

- All boats must be at Phase 1 Beach by 9:00 am on Race Day.
- Decoration Judging will begin at 9:30 am on the Sandy Recreation Facebook Page.
- All participants must arrive at 10:15 am to review rules.
- The race will begin at 10:30 am.

## Boat Building Rules

The first ingredient in cardboard boatbuilding is creativity. The second important ingredient is problem-solving. Then there is cardboard, which must be corrugated. There is no one way to build a cardboard boat. There are some requirements about the use of certain substances and materials for boat construction. But other than those, people are encouraged to have fun.

## Safety Precautions

All boating participants **12-years-old and under MUST wear a life jacket**. Each occupant must be visible while the boat is in the water. At least **ONE** adult must be on the boat. No one else is allowed in the water besides the participants.

## What types of boats are involved?

We've heard of cardboard kayaks, barges, freighters, pirate ships, riverboats, rafts, beds, and other floating vessels in the shape of a bratwurst, a giant Tootsie Roll, cars, trucks, airplanes, space shuttles, aircraft carriers, dragons, sea monsters, sharks, dolphins, sea turtles and other marine animals — all made of cardboard, of course.

## Where to get materials?

You might obtain corrugated cardboard from appliance stores. The shipping boxes for refrigerators and big freezers can be good possibilities. Maybe you can get boxes for TVs, bedding, bookcases, or other furniture.

## Before Building

Building a person-powered cardboard boat is a lot of fun. First, start with some objective in mind. Do you want to build the fastest boat at the regatta, or are you more interested in one of the awards? Perhaps you want to be featured in the Sandy Pines Footprints.

Next, envision what you want your cardboard creation to look like and come up with a design idea. **Build a model** using a manila folder or other heavy paper or lightweight cardboard. That way, you can fold, re-fold, and fold again to your heart's delight. You can cut it up, glue or tape it together, and try out your design idea in small scale before working on a full-sized creation. Or you can throw out an idea that sounded great, but just doesn't work, and then try something else before you waste any cardboard.

**Most teams utilize engineering and design principles.** Consider the science involved. There's a simple principle in physics which says that the total buoyant force is equal to the weight of the water displaced by the object. This buoyant force is distributed evenly across the area of the object. Otherwise, the boat bends in half when you get into it and water pours in. Calculate the displacement of your idea so that you will have some idea about the buoyancy of your design.

**Here's the basic number:** a cubic foot of water weighs about 62 pounds. That means that a 180-pound person will float in a boat that is 1 foot by 1 foot by 3 feet. Sounds uncomfortable, but at least you would know how much boat you and your crew will need at a bare minimum to displace enough water to stay afloat, without taking into account things like splashing or wobbling. Last minute modifications and frantic problem solving, however, are often required. Creative problem-solving adds to the fun. Whether you get your insights from methodical effort or from wide-ranging trial-and-error, building a cardboard boat can be very rewarding. Be sure your boat will be able to get out the door of wherever you build it. There are woeful tales about creations that had to be dismantled — or even trashed and rebuilt — just because no one thought about the size of the boat and the size of the doorway.