



Cardboard Boat Building Tips & Race Day Prep

Lake Accotink Park

Key Elements:

- Going for speed - a well-designed boat with good paddles
- Going for beauty - a boat that will float long enough to race
- Going for fun - a boat built by you and family for the experience

Sink or Float:

A box 1 X 1 X 3 will float 180 pounds ...if sealed ☺

Why?

A boat will support the weight of water it displaces

1 cubic feet weighs 60 pounds

If your crew weighs 180 pounds / 60 = 3 cubic feet

1 cubic feet = 7 1/2 gallons

1 gallon = 8 pounds

Design elements:

- Make a drawing
- Make a small scale model
- longer boats go faster but are harder to turn
- Wider boats are easier to maneuver and tip over less
- Boats shorter than 10 feet are harder to steer
- A flat bottom boat is recommended. V shaped bottoms tend to tip
- Reinforce to withstand water pressure
- Brace the hull with rigid pieces
- Don't step on cardboard before using
- Sides shouldn't be higher than 2 feet
- Try to make your boat symmetrical and balanced

Construction elements:

There is NO right way to build a boat, but plenty of wrong ways

- Must only use cardboard for the entire boat
- Best materials to use
 - o Tape (duct, clear, etc.)
 - o Glue adhesive (hot glue, caulk, etc.)
 - o Paint (not tempera) NO OIL BASED
 - o Carpet tubes
- Overlapping seams important
- Exposed surfaces should be paint
- More cardboard means more weight! Design effectively

Important builder Secrets:

- Measure your way out

- Figure out transportation
- Have patience for gluing
- Follow the rules; not worth being disqualified
- Have an EMERGENCY kit for race day (tape, scissors, etc.)

Things to remember:

- You must be able to pick up the boat and place it in the water and, bring it back out.
- Everyone participating WILL get wet ...even when launching
- Wear old clothes and water shoes
- Regatta is Rain or Shine
- Judges like to ask questions about your boat.
- Prepare for a long day and a lot of people!