

Cardboard Boat Race (Please note Date Change!!)

August 14, 2010 at the Waretown Lake

CONTEST RULES and REGULATIONS:

ONLY Allowable Supplies for constructing your boat

- Corrugated Cardboard
- Elmer's Wood Glue
- Duct Tape
- Long Straight Edge (rule, yardstick, measuring tape)
- Cutting Implement (utility knife, box cutter, tin snips)
- Quick Dry Caulking (latex)
- Paint & Brush/Roller (Outdoor Paint)
- Optional Polyurethane for topcoat
- Marking Pens & Pencils
- Weights (bricks or heavy stones)
- Binder Clips or Clamps
- Putty Knife

Forbidden Materials!

- Two part glues
- Fiberglass resins and Plastic Epoxies
- Metal
- Plastic
- Foam Core Boards or Styrofoam
- Pasteboard or Chipboard types of Cardboard
- Metal foils and paints
- Non-corrugated cardboard (ie. - cardboard tubes)
- Wood
- Cardboard that has been factory coated with wax

When to Start

Although you can build a boat in a weekend, building a good boat that will last through multiple races will take a bit more time. Allow at least a couple weeks so the glue will dry.

Contest Divisions

K-6 grade 7-12 grade Adult

2 Prizes will be awarded in each division

(1) best decorated and (2) 1st to cross finish line

Entry forms available in Town Hall, the Recreation Office and on the web - www.townshipofocean.org under Recreation

All entry forms must be received no later than August 12, 2010

Race Day: Aug. 14th – For all pre-entered Boats: Registration begins at 10:30 am Races will start at 11am

After registration, all boats go through a technical inspection by the judges. Any boat that is found to use "forbidden materials will be disqualified. The ruling by the Judges on this is FINAL.

Finally all dressed up and ready to go. Be prepared to carry your boat to the starting line.

For more information call Jeanne Broadbent 693-5407 or

Email recreation@townshipofocean.org

Boat Building Process Suggestions from the WEB

Step 1: Draw a design on paper and use this design to build a small mock-up. Use this scale model to determine how many sheets of cardboard you'll need.

Step 2: Once you have a model that looks good, transfer the design to graph paper using appropriate dimensions. This can be used to draw a pattern on the cardboard sheets.

Hint: Lines to be cut should be identified differently than bend lines.

Design Considerations

- Set a goal: are you building a Fun Boat or a Speed Boat?
- Plan the right size boat – a box 1 x1 x 3 will float 180 pounds... so, if your boat is big enough to hold you, in all probability it will also be big enough to float.
- If you plan to have a 6 person crew, build a boat that will fit 6 people. Be sure that you account for their weight. 6 kids will take less boat than 6 grown adults!
- Flat Bottoms tend to be less "tippy" than V-shaped bottoms.
- The lowest center of gravity (sitting in the bottom of the boat) is the most stable position. Kneeling or standing... you'll probably tip over.
- **Dimension Considerations**
 - Longer boats go faster, but they are harder to turn. Boats shorter than 10 feet are difficult to steer straight 10-12 feet in length seems to be just about right.
 - Don't make your boat sides too high. For example, 18 inches in height will allow room to sit and paddle without the edge of the boat blocking your arms. Plan width based on the number of people. If there will be just one paddler, don't go wider than 30 inches. If there are two, try about 48 inches.

Step 3: When you are ready to go, start with flat sheets of cardboard. Any bends or folds in the cardboard will weaken the boat, so try to get flat, unused sheets of cardboard if at all possible.

Once you have the flat cardboard, draw the design on it. Then you are ready to start cutting & bending.

Hint: To bend cardboard cleanly, make a dent or a crease in the flat cardboard using a blunt rounded tool like the handle end of a crescent wrench.

Step 4: Usually a boat will be made up of multiple pieces, assembled together and glued. **Hint:** After gluing, use a clamp to hold the glued parts together until dry (1/2 – 1 hour).

Waterproofing Tips

- ▣ Paint all surfaces of the cardboard before gluing (rollers paint faster than brushes). A polyurethane porch and deck enamel works good. Use 3 coats.
- ▣ Caulk edges (cut nozzle at angle to make a U-shape to run along edges).
- ▣ Glue after painting and caulking. Squeegee glue across entire surface to be glued.
- ▣ Avoid oil-base stains, caulk and glue. The oil soaks into the cardboard, may never dry and this will weaken the cardboard. No hot-melt glue guns allowed – this glue "melts" on warm days.
- ▣ Reinforced paper tape works best over caulked edges and seams. Duct tape is bad... it shrinks when painted. Clear tape is bad... it melts when painted.
- ▣ 3 layers of cardboard is plenty strong for the bottom of the boat.

Step 5: Caulk all of the folds and corners to seal then paint all of the individual pieces.

Any type of leftover paint could be used for this.

(Note: You can caulk after painting.)

Step 6: Put the pieces together and glue them. Once the glue dries, another round of caulking may be in order.

Step 7: Now comes the fun part – painting and decorating the outside!

Step 8: Don't Forget the Costumes! These can get pretty elaborate...

FINALLY

Boats that have pre-registered by June 14th only – Bring your Boats to Registration at the lake at 11 am on Saturday June 19. Races will begin at 1pm

