

## Building a cardboard boat is all about trying to meet "The Challenge"

**Along** the way, you will enjoy encountering and dealing with many small details. But look ahead to the satisfaction of knowing you accomplished something that most people won't even try -- building a boat made of corrugated cardboard.

**First things first** . . . start with some objective in mind. Maybe you want to build the fastest boat at the race. Perhaps you are more interested in one of the Pride of the Fleet award for design or eye appeal. Maybe you want to win the Best-Dressed Team Award or the Team Spirit Award. Perhaps you want to get on television or be the featured photo in the newspaper. Or just maybe you want to take home the Titanic Award for the most spectacular sinking. **Remember** all boats must be made of corrugated cardboard and if the judges deem it necessary, your boat will have to pass the dreaded "Ice Pick Test" to verify the boat is constructed of cardboard only.

**Next** . . . start with a **design idea**, a vision of what you want your cardboard creation to look like. But consider this first -- it doesn't have to be a boat at all! It can be any design you like or want to try out. We've seen full-scale pickup trucks, space shuttles, planes, trains, automobiles, monsters, the starship enterprise, and so much more. Oh, sure, we've had lots of boats too: submarines, aircraft carriers, PT boats, pirate ships, and so on.

**Try this to save time** . . . **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 content. You can cut it up, glue 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 won't work, then try something else before you have wasted any cardboard.

**How about a little science?** If you want, you can toss in a little physics or other sciences. Maybe you will choose to calculate the **displacement** of your design idea so that you will have some certainty 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 man will float in a boat that is 1 foot by 1 foot by 3 feet -- of course, that could be a bit uncomfortable! But at least you would know just how much boat you will need for you (and your crew) so you don't over-design it and add unnecessary weight.

**Then again, how about some art?** Perhaps you have a really creative idea, maybe something that nobody has done before. Unless you get your kicks from putting in lots of hours and making discoveries along the way -- hey, sometimes that can be great fun -- you may want to at least try out that unique or innovative idea in model form. If you want to put a palm tree in the middle of your "desert island," be sure you won't make the whole thing top-heavy -- unless, of course, you are trying for the Titanic Award.

**Now, go full-scale** . . . but first, think about this: make sure your creation will be able to get out the door of wherever you choose to build it. We have many tales of woe about boats 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 door.

**Creative problem-solving** is the name of the game. Whether you get your creative insights from methodical effort or from wide-ranging trail-and-error, building a cardboard boat can be -- no, make that, will be -- both fun and challenging.

**FYI** -- there are no plans, no pre-set designs, no step-by-step instructions here . . . no recipe cards, no fill-in-the-blank formats. The first ingredient in cardboard boat-building is creativity. The second important ingredient is problem-solving. Then there is cardboard, of course -- and it has to be corrugated.