Raft Building Information

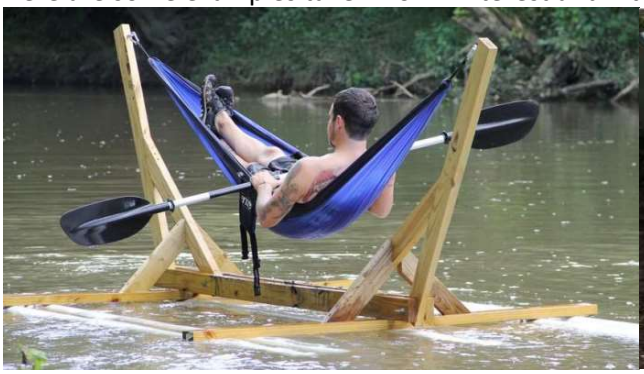
Basic Raft Construction

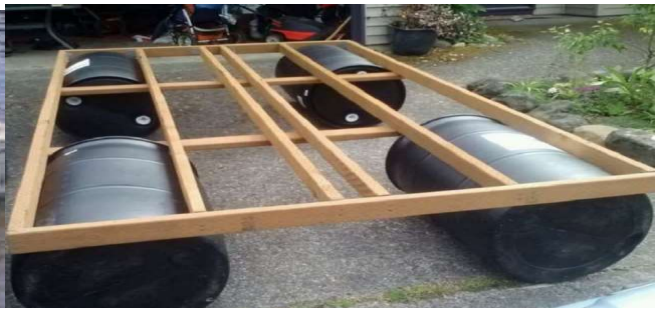
There are six (6) basic elements to join together when building a raft – It is Flotation, a Sturdy seat/deck, some type of propulsion (the act of pushing/moving forward), steering, teamwork and of course safety.

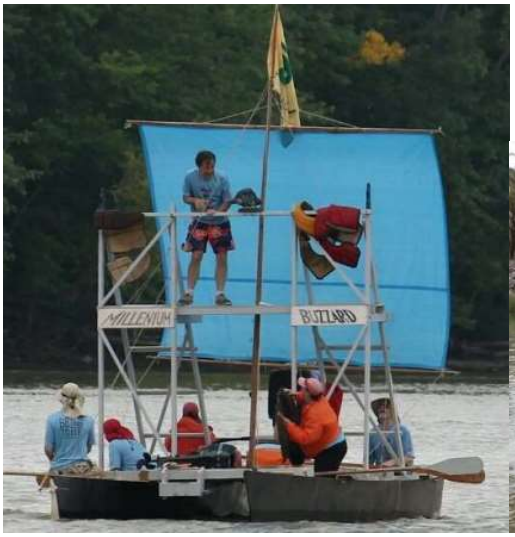
Rafts can be built from scrap wood, foam, plastic barrels, plastic bucket, milk jugs, water bottles, and any recycled materials. With some creativity you can take whatever is around you and recycle it into something that floats. Rafts are not boats and therefore don't need to be watertight. This is because they are usually built from materials that are naturally buoyant that will continue to float event if they are damaged.
Foam is the most common flotation material used on rafts and it is easy to obtain, comes in a variety of shapes & sizes, it's lightweight, easy to cut and shape and works well with all kinds of raft designs.
Join two foam pontoons with a wooden frame and lay plywood on top and there you go!

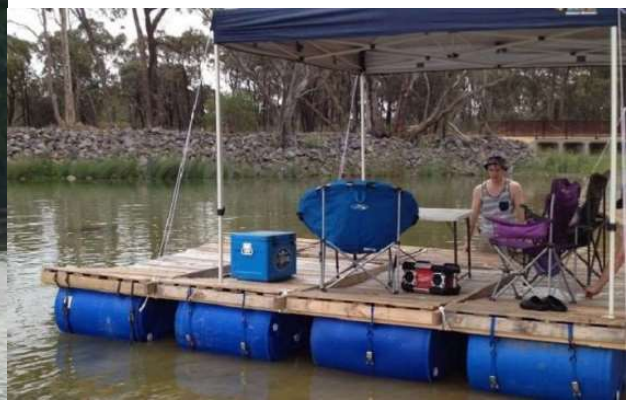
Barrels are popular since they can support a lot of weight and are very durable and can be used as is with little if any preparation other than installing to the frame.

Here are some examples taken from Pinterest and internet searches



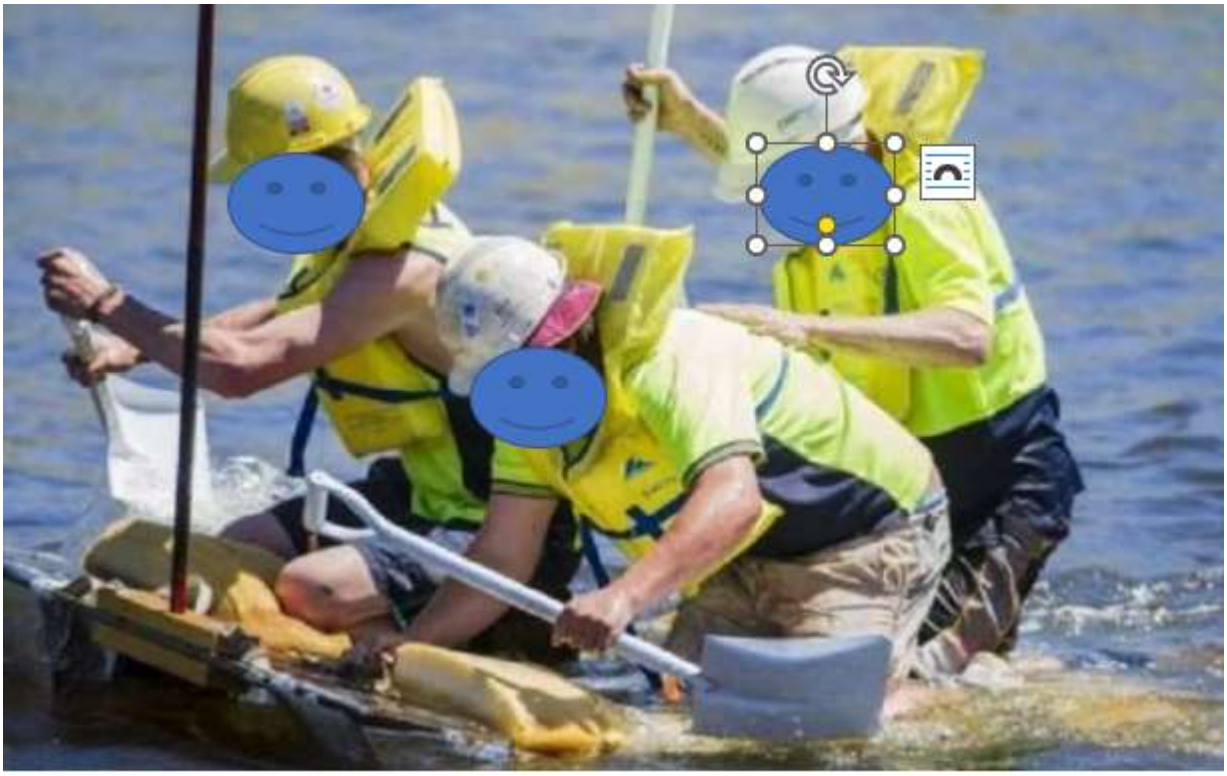






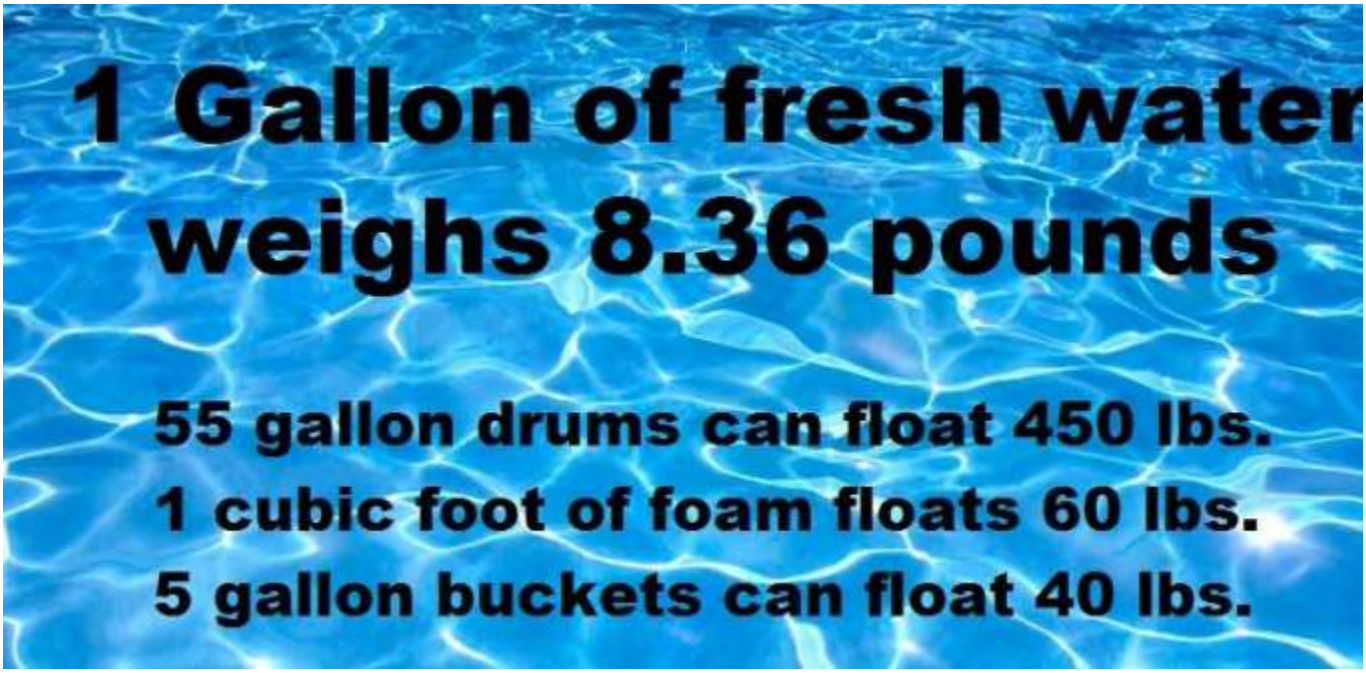
How Much Flotation

Rafts need sufficient flotation to support the weight of the raft, the crew, and any stuff brough on-board. This will vary for each raft and is dependent on your crew size, the construction, the materials and cargo brought along. May be a good idea to have extra flotation…



Calculating Flotation

Know your crew's weight (add 5-10 lbs more), know the weight of your raft, Add some extra weight to provide that margin of safety… An example – crew of 6 weights in a 860 lbs, raft is 400 lbs plus extra 540 – so total weight to float is 1800 lbs



For each gallon of water displaced by flotation materials you will gain about 8 lbs of buoyancy. This is the force that causes objects to float. By dividing 1800 lbs by 8lbs we calculate that 225 gallons of water needs to be displaced. You can use 4 55 gallon drums, eight 30 gallon drums, 30 cubic fee of foam, 45 5 gallon buckets or 225 one gallon milk jugs.

The best placement is on each side of the raft like a pontoon boat – avoid placing all materials in one centralized location it will make your raft unsteady and tipsy. And don't forget to leave room for your crew to do the rowing or paddling.

We will keep rope, tie downs, other items to help you keep your flotation materials to the raft frame.

Teamwork and Cooperation

Teamwork is the most important ingredients for this event. You will want to join forces and ideas with as many people as you can. It is the fun leading up to the race that will build memories and we will be excited to hear about those stories so we can share with others and continue to make these types of events in our BEAUTIFUL Bay of Chaleur.

SAFETY during construction

Please be safe with building the raft – We don't want you to get hurt, so wear the safety glasses when using tools, wear gloves when cutting materials – Look out for one another please. And don't forget to use sandpaper to smooth out and remove sharp edges – Bon Ami times are usually sunny, and you may be wearing shorts on race day – Splinters are no fun… Just in case we will have a First Aid kit but we don't want to use it.

Testing your Raft

It is important to test it out to see how it works. make sure there is enough room for your crew, and everyone has enough room and can paddle.

MOST IMPORTANT THING – HAVE FUN with this experience – The race is an opportunity to show off your work and share your stories… and possibly win a prize