

Overview:

Each physics class will enter boats created by teams of students. The structure of the boats can consist only of cardboard and adhesive. The object is to build a boat that can carry at least two students (maximum of seven) the length of the diving pool and back

The Rules:

The Basic Materials

1. The structure of the boat may consist of only cardboard, pliable plastic sheeting and adhesive.
2. The cardboard can be of any size or type, cardboard boxes, tubing, or sheets.
Carpet roll tubes are woven with plastic, but are still acceptable.
Prefabricated cardboard hulls are not acceptable.
No plastic bottles or containers.
3. Spray on acrylic coating, waterproofing agents, etc... are not acceptable.
4. All adhesives are acceptable as long as they are not a potential danger to the pool or the occupants of the boat.

The best tape is duct tape. Make sure it is strong. Masking tape dissolves.

Caulking, rubber cement, glue and other sealants must not come in contact with the water because the chlorine in the water will break them down. Floating chunks of sealant may cause problems with the pool pumps.

5. Staples, nails, and other hard adhesive materials are unacceptable. If they are exposed to the pool they may fall out and create a safety hazard.
6. Boats that are made of unsafe or unacceptable materials will not be allowed into the pool.

Decorations

1. Decorations may also be made of cardboard and adhesive.
2. The boat can be colored with magic markers or **non-water soluble** paint.
3. The paint must be dry completely or your boat will not be let into the pool

Propulsion and Stability

1. The boat must be propelled through the water from inside the boat, such as rowing with oars or hands.
2. The boat must be piloted to the end of the pool, turned 180° and return to the starting point without sinking.

Appropriate Behavior

1. No running around the pool deck, or horseplay of any kind.
2. No non-swimmers allowed in a boat.
3. All school rules apply at this event. Swimwear is allowed (board short type bathing suits for boys and one piece bathing suits with shorts for girls) or students can wear gym clothes.
4. It is the responsibility of each team to clean up their boat. No debris will be left in the pool.
5. No inappropriate themes during your performances.

Clean Up

1. Each group is responsible for disposing of their own boat. The boats must be broken down before placing them in the trash container. If a group does not wish to throw away their boat they must have their boat transported away after the show.
2. Failure to clean up will result in no credit for the lab.

Judging

***Each boat will be evaluated and scored by the respective teacher according to the criteria below:

- a) buoyancy b) speed c) complexity of design d) aesthetics e) pageantry