



SkillsCompétences
Canada
ᓄᓇᓂᓂ Nunavut



CARDBOARD BOAT RACE



PLANNING & SKETCHES

DRAW YOUR TEAM BOAT PLANNING AND SKETCHES HERE FOR MARKS!

Team Name

Team Name Here

EVENT DETAILS

Date:	
Locations:	Inuksuk High School & The Aquatic Centre
Duration:	
2.5 Hours	Construction of Boats
2 Hours	Cardboard Boat Race

SCHEDULE

08:00 - 09:00	Handout materials
09:00 - 11:30	Teams construct boats
11:30 - 12:00	Judge design & construction of boats
12:00 - 12:30	Deliver boat to Aquatic Centre / Clean up
12:30 - 13:00	Lunch / Clean up
13:00 - 15:00	Boat races / Judging
15:00 - 15:30	Clean Up



OVERVIEW

The Challenge:

Your challenge, should you choose to accept it, is to:

- To design a pool worthy cardboard boat
- To construct this boat in a two-hour time frame
- To win the speed race, buoyancy, and endurance challenges

Following construction, technical skills and design will be tested for speed and buoyancy.

Divisions:

There will be 1 division for the competition:

- Grades 9-12

Teams:

Teams will include 4-6 crewmembers and a teacher advisor.

Judging and Winners:

Cumulative points will be awarded to teams according to the following criteria.

- Design and construction
- Speed of the Boat
- Buoyancy and endurance

Team spirit is a must! Come up with a theme! Make lots of noise – HAVE FUN... but don't become unglued in the process!

REGISTRATION:

Participants must complete the online registration or return a copy to their teacher before the Cardboard Boat Race

- Team Registration Form
- Participant Form regarding medical info, photo release, and code of conduct

The Objective:

To race against the clock without sinking.

SPEED RACE

Rules and Regulations:

A maximum of two team members can ride in the boat across the pool. Teams choosing to put two people in their boat can expect a faster race time, but the extra weight may be risky. Remember, boats must survive the Speed Race to participate in the Buoyancy Endurance Event.

Certified Lifeguards will be on duty, but occupant(s) unable to swim must wear a personal floatation device (to be determined by Aquatic Centre Staff).

Participant(s) must kneel or sit in the boat during the race.

Feet may not be used to propel boat!

One member only is responsible for holding the boat on the pool deck at the start of the race.

Each boat must have a race number placed at the front of the boat or visible location.

Each team must know their heat number and be prepared to race when called upon. Note that there will be no re-matches for late racers.

****Only teams that successfully complete the Speed Race will continue to the Buoyancy Endurance Event.**

BOUYANCY ENDURANCE

Objective:

To be able to stay afloat for two minutes

Rules and Regulations:

Any team wishing to compete in the Buoyancy Endurance Event must have successfully completed the Speed Event.

Teams will not be allowed to reinforce or adjust their boats in any way following the Speed Race.

Teams must designate three members of their team to participate in this event.

At the start of this event, the judge will give go-ahead for chosen team members to enter the boat.

Teams will have one official chance in the Buoyancy Endurance Event.

Scores will be calculated according to the length of time each boat stays afloat.

TOP TIPS

Strategy	Look over the judging sheet to determine your strategy for the race. Think of where you can get the most points.
Packing Tape	This is what you will use to seal the boat when building is complete.
Balance	When you are building the boat, think of where your team member will sit during the race. Remember that you need balance so that the boat doesn't tip.
Stability	Team members will be allowed to help stabilize the boat in the water at the start of the race but you can only be one arm's length away from the starting edge.
Materials	You have packing tape, string and duct tape to put the boat together. How can you best use these three materials?
Edges	Remember that the meeting edges of the cardboard are critical because water leaks in and slows you down if the edges aren't reinforced.
Time	Spread the work around so you don't run out of time.
Teamwork	What are the strengths of the people on your team and what part can they work on? But also put your skills to work together to figure things
Creative	Be creative, crazy and wild with the designs but stay clean.
Cheering	Get your friends screaming for your team to win.

SUPPLIES

TOOLS AND MATERIALS - BOAT CONSTRUCTION

Materials Supplied by Skills Canada NU:	Materials Supplied By Each Team:
• one roll of packing tape	• A maximum of 2 straight edges/rulers of any length or size
• one sheet of cardboard- approx. 6' x 8'	• A maximum of 2 tape measures
• string	• Two pencils
• one paper clip	• A maximum of two cutting devices
• approximately 16 meters of duct tape	• A towel to wipe off the boat after the speed competition
• paper	• Decorations, this is for cosmetic purposes only (no paint, contact cement, plastic bags)
• A maximum of two cutting devices	• Swimsuits/ towels for individuals getting in the pool

****Teams are encouraged to individualize and decorate their boats up to the maximum cost of \$20.00**



Always yachts of fun with this crew

RULES & REGULATIONS

Construction:

Boat construction must include a design sketch (this must be presented to the judges during construction).

The design of the boat must allow for race participant(s) to be fully contained within the structure for the speed and buoyancy events.

Rafts and surf-like structures will not be eligible.

Only materials noted in 'Tools and Materials' may be used in construction.

The paint, gloves, contact cement cannot be used as decorations or as materials in the final boat construction. Plastic bags of any kind are not considered decorations.

Any devices used to propel the boat during the race must be constructed from the materials provided by Skills Canada Nunavut.

Aids such as scale patterns or prefab materials for tracing are not allowed.

Laminated team number, provided by Skills Canada NU, must be secured on the front of your boat.

Boat Race:

All participants involved in the water/race portion of the event must adhere to the current aquatic center rules.

All participants involved in the water/race portion of the event must complete a swim test to enter into the deep end. If individual cannot pass the swim test, a life jacket may be used provided by the Aquatic Centre.

Official announcements:

Must be adhered to as follows:

Ready = racing participants must assume a ready position.

Set = boat must be in the water (one person holding).

Go = GET GOING!

** The race is complete when one part of the boat touches the end of the pool.** The race portion consists of going to the far end of the pool and back to the starting point.*

**** Only teams that successfully complete the Speed Race will continue to the Buoyancy Endurance Event.*

JUDGING CRITERIA

Awards will be presented to the top earning teams in each division based on the following

DESIGN & CONSTRUCTION:

Design- Sketch innovation and design	/ 5 Points
Does construction follow sketch?	/ 3 Points
Teamwork, Organization, Spirit	/ 3 Points
Safety and Cleanliness of Area	/ 3 Points
Visual Appeal	/ 3 Points
Environmental: (bonus points)	
Cardboard Usage	0= all gone, 5 = one sheet used / 5 Points
Tape Usage	0 = all gone, 5 = minimal duct tape used / 5 Points
All Supplies Returned (team form, scissors/ knives, bags, clean workstation)	/ 4 points

SPEED

Fastest times across the pool will receive points as follows:

1st place	16 Points
2nd place	14 Points
3rd place	12 Points
4th place	10 Points
5th place	8 Points
6th place	6 Points
7th place	4 points
8th place	2 points
Total maximum points for Speed:	/ 16 Points

BUOYANCY & ENDURANCE TEST

Float for as long as possible:

2:00 +	12 Points
1:30 - 1:59	10 Points
1:00 - 1:29	8 Points
0:30 - 0:59	4 Points
0:00 - 0:29	2 Points
Total maximum points for Buoyancy/Endurance:	/ 12 Points

Design & Construction + Speed + Buoyancy

MAXIMUM TOTAL

/64



Other Keynote Programs



If you need more information, feel free to contact any of the Skills Nunavut team.

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