



2020 CARDBOARD BOAT RACES

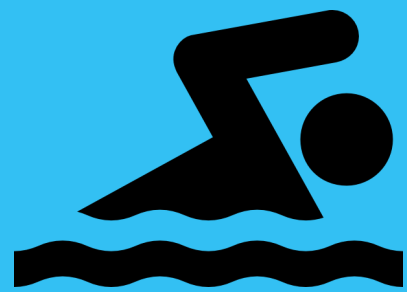
SKILLSALBERTA.COM



SINK



OAR



SWIM

Northern Alberta: Monday February 3, 2020

Southern Alberta: Tuesday February 4, 2020

DATES AND LOCATIONS

NORTHERN CARDBOARD BOAT RACE

Monday February 3, 2020 at 9:30 AM

NAIT, Main Gym, Edmonton

SOUTHERN CARDBOARD BOAT RACE

Tuesday February 4, 2020 at 9:30 AM

SAIT, Campus Recreation Centre (V Building)



OBJECTIVE

Teams of four junior or senior high students will design, construct, and race a cardboard boat across a 25m swimming pool.

Students will gain valuable problem solving skills and learn the practical application of important principles. Including:

- ◆ Design, research & presentation
- ◆ Structure, strength & rigidity
- ◆ Water permeability
- ◆ Construction
- ◆ Buoyancy and displacement
- ◆ Teamwork and FUN!

Participating schools will be provided with the required materials on the day of the event.

The boat must be built in 1 ½ hours.

Judging will be based on: design, construction, safety, speed across the pool, and weight capacity.

Please Note: Four team members are recommended, however three team members are the minimum required to compete. All members must be ready to go into the pool.



GET INVOLVED!

Registration for all races opens on November 13, 2019 at 8:30 AM.

Register early to avoid disappointment!

REGISTRATION INFORMATION

- ◆ Register early! Registration and additional team requests are awarded on a first come, first serve basis. There is a 55 team limit per race and spots will be reserved for teams traveling from the Central region at each race. Schools may register one junior high and one senior high team. Additional teams may be requested by using the Waitlist Request on the registration portal. Waitlist spots will start being granted on December 11, 2019.
- ◆ The registration fee is \$80 per team. Invoices will be sent out following the event. **Team withdrawals after December 11, 2019 will be invoiced the full amount.**

Your school must be registered with Skills Canada Alberta to be able to participate. Registering as a Skills School is free of charge, visit skillsalberta.com and select “*Become a Skills School*” under the Resources tab.

Registration Steps:

- ◆ Login to the registration portal and select the “Cardboard Boat Races” tab.
- ◆ Click the green “Add New” button and if a spot is available a team spot will be added to your profile.
- ◆ If a spot is not available or if you would like to request a spot for additional teams, request a spot under the Waitlist section by clicking on the “Add New” button
- ◆ Enter the students’ information in their team grouping. You will be required to provide each student’s first name, last name, parent/guardian’s name and email. An online release form will be sent directly to the parent/guardian and will be marked as completed once it has been filled out.
- ◆ **All** student information including the online release form must be completed by 11:59 PM on **January 8, 2020.**



For help or questions, contact Katherine Kupchenko:

katherinek@skillsalberta.com or 780.945.0945



PREPARATION FOR RACE DAY

- ◆ Teams should research the design and construction of their boat.
- ◆ Teams must prepare a design sketch of their boat in advance. Points are awarded for the sketch!
- ◆ It is recommended that students build and test a prototype of their boat in advance of the race day.
- ◆ Plan the decoration material for your boat (max. \$20 cost limit). Paint, crayons, wax, sealers, waterproofing agents, glue, string, or additional tape/decorative duct tape are not permitted. Teams earn points for the visual appearance of their boat! Decorations **MUST** be removed before the pool portion of the race.

RACE DAY TIPS

- ◆ All students on the team will need to bring their swimsuits as all four members will need to go into the water.
- ◆ T-shirts will be provided that students will change into prior to the start of construction.
- ◆ In an effort to keep registration costs low, lunch is not provided. Students will need to pack their own lunch.
- ◆ Bring a lock to protect any valuables in the pool change rooms.
- ◆ Bring the boat decorations (decorations cannot exceed \$20). Decorations need to be removed prior to going into the pool.
- ◆ Bring a metre stick or other measuring tools.
- ◆ Schools are encouraged to bring a school sign or banner to cheer on their teams! Mascots, cheerleaders, and enthusiastic friends and family are welcome.



RACE DAY SCHEDULE

Northern and Southern Cardboard Boat Races

Time	Event
9:30 AM	Arrival / Registration
10:00 AM	Announcements
10:15 AM	Boat Construction
11:45 AM	Lunch and Change into Swimsuits / Construction Judging (Students not allowed in gym during this time)
12:15 PM	Meet in Gym and Float Your Boat Gallery Tour
12:30 PM	Races and Weight Event
1:45 PM	Judging Analysis
2:15 PM	Awards Presentation

CONSTRUCTION MATERIAL

Supplied By Skills Canada Alberta:

- ◆ Klever Cutting Tool
- ◆ One roll of packing tape (50 metres)
- ◆ Junior High: Two 4 ft x 8 ft sheets of 1/4 inch cardboard (B Flute)
Senior High: Four 4 ft x 4 ft sheets of 1/4 inch cardboard (B Flute)
- ◆ One small roll of duct tape (8 metres)
- ◆ One laminated sheet with team number
- ◆ Two pencils
- ◆ Surprise item on competition day (must be used in the construction of the boat)

PLEASE NOTE: It is strongly encouraged that competitors bring their own measuring tools such as metre sticks. No other tools or material may be used during the construction of the boat.

Cardboard can be purchased directly from **Instabox** (www.instabox.com).

CUTTING TOOL

The Klever cutting tool is very sharp and durable, but offers a protected blade to minimize injuries and floor damage. It works very similar to an x-acto knife and is able to do all of the similar cut lines. Please note, any other cutting devices will not be provided or allowed for use in construction.



Website and Videos:
[www.kleversales.com/
pages/Klever-Videos.html](http://www.kleversales.com/pages/Klever-Videos.html)

RULES AND REGULATIONS

1. Each team must display their boat design sketch in their building space for construction judging on the day of the event. Points will be awarded for sketch innovation and how closely the construction follows the design.
2. Only the provided construction materials may be used to build the boat.
3. All cutting must be done in a safe and cautious manner to prevent injuries and floor damage. Judges will deduct points if teams make cuts without attention to safety and the floor underneath.
4. Decorations must not aid in the floatation or the structure of the boat. A maximum of \$20 is allowed to decorate the boat. Decorations that may become dislodged from the boat or are metallic (ex. sparkles) must be removed before the speed and weight events. No paint, sealers, waterproofing agents, wax, string, glue, or additional tape/decorative duct tape are permitted.
5. Any devices used to propel the boat during the speed event must be built from the provided material during the allotted construction time.
6. Each team must secure the provided laminated number to the front of the boat.
7. Students will be able to vote for the “Float Your Boat Award” by selecting their favourite boat after lunch during the boat gallery tour. Teams cannot vote for their own boat.
8. In the speed event, all teams must start on the pool deck with their boats out of the water. Once the whistle is blown, the timer begins and teams will then place their boats into the water. Team members are allowed in the pool to stabilize the boat at the beginning of the race to help the rider smoothly enter the boat. The team members stabilizing the boat must not be more than one arm’s length from the edge of the pool.
9. NO RUNNING STARTS, LYING FLAT ON THE BOAT, OR KICKING ARE ALLOWED (PADDLING ONLY). Any infraction will result in a disqualification.
10. The speed event is completed when the team member that is steering the boat touches the finish line (end wall) while afloat in the cardboard boat. Students must move to the side of the pool to get out of the water.
11. Teams will race in heats against other boats and the clock. The heat winner will receive two points, while a team that does not win the heat but finishes afloat will receive one point. Additional points will be awarded to the ten fastest overall times.
12. Teams are eligible for the Titanic Award only if they do not complete the speed event and if the boat stays afloat for at least 10 seconds during the speed event. Teams are eligible for a maximum of ten points at the judges discretion for dramatizing their sinking.
13. In the weight event, three team members must be supported in the boat for one minute to receive full points. Judges discretion will be used to determine if the boat is floating and holding the full weight of the competitors.
14. No external help during the competition is allowed (i.e. from teachers, parents, advisors, etc.).



JUDGING CRITERIA

Medals will be presented to the top three teams in the junior and senior high categories based on the following criteria. In the case of a tie, the team with the highest speed and weight score will be the winner.

A Titanic Award will be presented to the best and most dramatic sinking during the speed trials.

DESIGN & CONSTRUCTION

Category	Criteria	Possible Points
Design	<ul style="list-style-type: none">Sketch innovation and designConstruction follows sketch	2 Points
Construction Quality	<ul style="list-style-type: none">Boat is built strongly: no loose connections, messy folds, or messy cuts	5 Points
Teamwork/Organization	<ul style="list-style-type: none">Team is well organized and works as a team	5 Points
Safety	<ul style="list-style-type: none">Team has a concern for safetyTeam's work area is clean and neat	
Visual Appeal	<ul style="list-style-type: none">Boat is creatively decoratedOverall visual impression	3 Points
Construction Points		/15

SPEED

Performance	Possible Points
Heat Winners	2 Points
Teams that did not win heat but completed the race	1 Points
Laying down on the boat, kicking, or running start	Disqualification
Ten fastest times overall	
1st	11 Points
2nd	10 Points
3rd	9 Points
4th	8 Points
5th	7 Points
6th	6 Points
7th	5 Points
8th	4 Points
9th	3 Points
10th	2 Points
Speed Points	/13

WEIGHT TEST

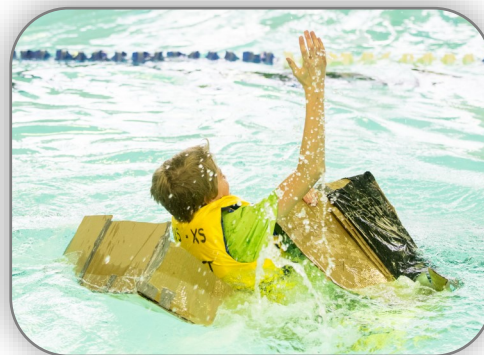
To complete, boats must hold the weight of three teammates for 1 minute. A maximum 12 points are awarded for boats that hold three teammates for 1 minute.



Time Elapsed	Possible Points
1:00 +	12 Points
0:30 - 0:59 +	9 Points
0:10 - 0:29 +	7 Points
0:00 - 0:09 +	4 Points
Weight Points	/12
TOTAL POINTS	/40

TITANIC AWARD - Best and Most Dramatic Sinking

To qualify, boats cannot complete the speed event but must stay afloat for at least 10 seconds. A maximum of 10 points are awarded for team members dramatizing the sinking - theatrics are encouraged.



Performance	Possible Points
0:30 - 0:59 +	2 Points
0:10 - 0:29 +	1 Points
Dramatic Sinking	10 Points
Titanic Points	/12

FLOAT YOUR BOAT AWARD - Popular Choice

Each team will be able to vote for their favourite boat during the gallery tour after lunch. It can be the boat with their favourite design, floatability, sinkability, snazziest name, etc. The Float your Boat Award will go to the junior and senior team with the most votes. Teams cannot choose their own boats.