



PRESENT THE

Extreme Sledding Competition
February 15, 2017

Recognizing that we live in a northern climate, it is time to have some fun and apply our technical skills!

Energized by a 4 person team, students will construct a human drawn sled, consisting of cardboard, 2- 2x4's, and a pull rope. Racing through a moto-cross style course, the competition will consist of two trips around the course alternating riders with the pulling team.

This experience will help with the development of new skills, including: leadership, teamwork, problem solving and design. Students who are up to this challenge, are guaranteed to come out and have a fun filled day.

Wednesday, February 15, 2017

Manitoba Institute of Trades and Technology
130 Henlow Bay, Winnipeg

Contest will be 9:00 am – 2:45 pm

Registration fee \$80.00 per team (includes lunch for participants and one advisor)

THE CHALLENGE

Teams of four students (from the same school) will design and construct a sled and then participate in a race through a moto-cross style course.

Sleds will be judged on design, quality of construction, teamwork/organization, safety/cleanliness, visual appeal, and speed. Each race will be timed and recorded by our panel of judges. Each team will compete in 2 heats, alternating their 2 riders and pullers.

Teachers:

Teachers(advisors) are only allowed to provide building advice before construction begins and during one 15 minute break. The challenge is designed to test problem solving skills and involves a broad base curriculum, including:

- Design research
- Durable construction techniques
- Aerodynamics
- Adhesives and bonding
- Team work
- Problem solving
- Visual appearance
- Physical fitness
- Leadership

ELIGIBILITY

- Junior High schools and Secondary Schools (grades 7, 8 & 9), four (4) students per team (at least one person on the team must be of the opposite gender)
- Please note registration is on a first come first - serve basis.
- Each team must have one teacher/advisor.
- Teams must be made up of students from the same school.
- Please fill out and return the registration forms by **February 1, 2017**.
- Fax or mail signed registration confirmation forms to Skills Canada Manitoba,
31-1313 Border Street, Winnipeg, MB, R3H 0X4
Fax # 204-927-0258

SLED SPECIFICATIONS

- Each team will be required to provide a team name. This name will be placed on the sled for identification purposes.
- Only the following materials may be used:

Tools and Material Supplied by Skills Manitoba:

- 1 - 4X8 sheet of ¼ " cardboard.
- 1 - 20 ft length of rope
- 1 - role of duct tape
- 1 - 500 ml can of contact cement
- 2 pr of protective gloves
- 2 paint brushes
- 2 - 6 ft 2X4's (wood)

Supplied by team:

- 1- Industrial (Manual Stapler) with staples
- 1 - Tape measure
- Marking devices such as sharpie, pens, pencils.
- Cutting devices, i.e. - scissors, utility knives.
- Decorations to enhance design
- Suitable clothing for outside activities. (Appropriate for weather conditions of the season)

Note: No other tools or equipment may be used in the construction of the sled. No hammering or other fastening devices not listed will be allowed. (If in doubt, please contact Skills Canada Manitoba prior to race day)
Electrical power will not be available at any time.

CONSTRUCTION RULES AND REGULATIONS

1. Each team must bring two copies of their sled design sketch or blueprint. (CADD drawings are permitted but are not necessary.)
2. The design must show evidence of originality and not just be something captured from a website.
3. One copy of the drawing will be submitted for evaluation on the day of the event.
4. Students will receive the standard list of materials and equipment on competition day and construct the project for judging in the afternoon.
5. Sleds must be designed to allow two team members to be fully contained within the structure of the sled.
6. Teams are permitted to bring materials with which to decorate their sled. Decoration must not aid in the speed or durability of the sled. Aerosol cans are strictly prohibited.
7. Teams are not permitted to use aids such as a full size prototype, to-scale patterns or prefabricated materials for tracing purposes.

RACE RULES AND REGULATIONS

1. Outdoor clothing appropriate for the weather must be worn during the race.
2. Sleds will race in two timed heats of 2 sleds per heat.
3. The two riders will alternate with the two team members pulling the sled for the two heats.
4. There will be no pushing or interfering of one team by another.

On the Competition Day

1. Teams should arrive at Manitoba Institute of Trades and Technology, Delta Rooms, Henlow Campus between 9:00 – 9:30 am for registration.
2. Lunch will be provided by Skills Canada Manitoba for student participants and one advisor.
3. Evaluation forms will be provided to all participating teams at Registration.

Schedule For the Day

9:00 am - 9:30 am	Arrivals and Registration
9:30 am - 9:45 am	Announcements and Instructions
9:45am - 10:45am	Sled Construction
10:45 am - 11:00am	Break(advisors may meet with team)
11:00am – 12:00pm	Sled Construction
12:00pm - 12:45pm	Lunch
12:45pm - 1:00pm	Sled touch ups & move to sled-cross course

1:00pm - 2:15pm Sled Races

2:15pm - 2:30pm Evaluation (Teams will remove all sleds, change and move to Delta Rooms/Hot chocolate)

2:30pm – 2:45pm Design\Race Results & Awards

AWARDS Will be given for the following areas:

Best Design

Best Time

Best Decorated

