

Guidelines



A SCIENCE SPECTACLE!

The Iron Science challenge is a celebration of science teachers! It champions the creation of high-quality creative approaches to teaching science and engineering and shines a spotlight on skilled and courageous teachers from across Canada.

The event follows a format similar to the famous Iron Chef television series, with teams of teachers presenting spectacular and imaginative feats of science and engineering – built around a “secret ingredient.”

Through playoffs at science centres across Canada, five teams will be selected to compete in the Iron Science final. After the event, check out the web site to download lesson plans developed by the winning teachers teams for use in any classroom.

HOW TO ENTER

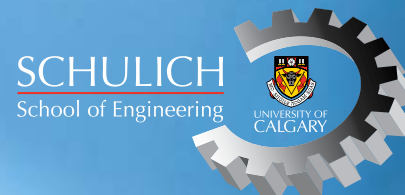
Enter at the science centre closest to you. Contact information is on page 5.

2008 PLAYOFFS

- Science World at TELUS World of Science – Vancouver
- TELUS World of Science – Edmonton
- Manitoba Museum – Winnipeg
- Canada Science and Technology Museum – Ottawa
- Discovery Centre – Halifax

2008 FINALS

DATE Friday, November 21, 2008
TIME 10:30 am - noon MST
PLACE University of Calgary
HOST Jay Ingram, Discovery Channel



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SUPPORTERS



Entry Guidelines

How to enter

Assemble a science teacher team and enter the regional playoff at the science centre closest to you, using the entry form at the end of these guidelines.

Team composition

Iron Science teams should include four participants, two of whom hold valid teaching certificates. The team may invite a member from outside the realm of science education, such as an athlete, musician or celebrity. At least one of the team members is expected to act as "colour commentator," clearly explaining the demonstration to the audience.

"Secret Ingredient"

As in Iron Chef, the "secret ingredient" provides the central theme of each Iron Science presentation. In order to promote the highest quality of presentation, the teams will know the "secret ingredient" prior to the event. The "secret ingredient" will lend itself to interdisciplinary lessons and be applicable to the science curriculum. To ensure other teachers are able to draw on the presentation in the classroom, the ingredient will be easily accessible and relatively inexpensive. Examples of secret ingredients would be salt, milk or alcohol. It could also be a concept like time, pressure or gravity.

Presentation components

Each team will be allowed **10 minutes** for presentation. The presentations should involve several scientific disciplines such as chemistry, biology and physics, and designed for a general audience. You will receive more information about the stage area and its possibilities during a telephone briefing.

Selection process

From the entries received at each science centre, four teams will be chosen for the playoff event based on the following criteria:

- Originality and creativity in the presentation concept
- Originality in explaining the science surrounding the "secret ingredient"
- Creativity in combining and/or crossing disciplines, creativity in linking concepts
- Perceived potential combined education and entertainment value (appealing to different senses and learning needs, engaging the audience, creative staging and other theatrical elements)
- Ability to draw on lessons for classroom use

Acceptance into the playoff event

Based on the entries received by the science centres, four teams will be selected for the each playoff event. A conference call will be arranged with all of the selected teams to go over the expectations and schedule. The secret ingredient will be revealed to the participating teacher teams at this time.

Props and materials

Iron Science is meant to be engaging as well as informative. Presentations should provide entertainment value, and teams are encouraged to focus on this component and appeal to all senses. Visuals, sound and/or music and audience participation should be integral to the presentations. **All music must be copyright free.**

SMART Technologies, as the prize sponsor, is making a SMART board™ interactive whiteboard available at the finals in Calgary for use in any presentation. SMART Technologies is an industry pioneer and global education market segment leader in user-friendly ICT products and group collaboration tools.

Keep in mind, it will be your responsibility to bring, ship and handle all props and materials to Calgary. Up to \$200 is available for each team to cover extra luggage and shipping costs.

Lesson plans

Teams that compete in the finals are required to submit lesson plans as a component of their entry. These will be posted on the Discovery Interactive web site, where team members will be credited as authors of the plans.

Technical rehearsal

Teams are required to run through their presentation on the evening prior to their event at both the playoff and finals level.

Judging

One team from each playoff event will be invited and funded to present at the national Iron Science event. The judges will use the following criteria to determine who goes to the finals:

- | | |
|-----------|--|
| 10 points | How well does the presentation demonstrate or explain the science? |
| 10 points | How creative and engaging is the presentation? Does it appeal to all the senses? Does it entertain the audience? |
| 5 points | Will the creativity and content of the presentation add value to other teachers and their students? |
| 5 points | Applause vote! |

Winning the playoff

One team will be selected to go on to the finals in Calgary, Alberta, on November 21, 2008. Team travel and accommodation, and two days of teaching relief, will be covered for finalists in the Iron Science event:

Friday November 21, 2008
10:30 am - noon
MacEwan Hall, University of Calgary

Prizes

All finalists will receive:

- 1) The honour of being an Iron Science teacher!
- 2) An Iron Science lab coat
- 3) All travel, accommodation and teaching relief

costs to perform at the Iron Science finals, hosted at the University of Calgary and webcast on DiscoveryChannel.ca.

- 4) The winning team will receive a SMART Board™ 600i interactive whiteboard system and a Senteo™ interactive response system, valued at over \$5300. All other teams in the finals will receive a SMART Board interactive whiteboard, an approximate \$1600 value.

The 600i for educators combines a short-throw Unifi™ 45 projector with a built-in sound system and a SMART Board interactive whiteboard. The 600i enables teachers to easily incorporate multimedia elements such as videos and interactive demonstrations. The Senteo interactive response system enhances communication and interaction in the classroom, enabling teachers to assess understanding of lessons and concepts. The award-winning line of SMART Board interactive whiteboards is the most widely installed in the world because of its product quality, versatility and ease of use. The SMART Board interactive whiteboard is used to teach over 18 million students in more than 600,000 classrooms in more than 100 countries around the world.

Safety

The venue does not permit glitter, sequins, confetti or fake snow inside its building. Presentations should not pose safety hazards to audience members or the judging panel, and participants will be expected to wear appropriate safety gear if necessary. Open flame **is** allowed, but any team wishing to use fire in their presentation must notify the organizers.

Permissions

By participating in this event, you grant permission for the event host, Discovery Channel and DiscoveryChannel.ca to use still and moving images of the event for the purpose of publicity on its web site, newsletters or printed materials. Because the presentations will be made public, permissions for all music and images must be obtained, or be free of copyright.

Entry form guidelines

Submit the following information to the science centre contact provided on page five.

- 1. COVER PAGE: Team name and primary contact information.**
- 2. PAGE ONE: Team member information (up to three members, in addition to the primary contact). Please provide the following information for each team member.**

Name
School or Organization
Phone Number
Email address
Teaching certificate (yes or no)

- 3. PAGE THREE: Presentation information (two pages maximum for this section).**

A. Imagining that the secret ingredient is “bottled water,” how would you plan to inform, engage and entertain the audience, and stimulate ideas for other teachers?

B. Why should we pick your team? Why will your demo and lesson plan be stimulating from both entertainment and learning perspectives?

C. Please tell us about your team members and why they would make good Iron Science contestants.

- 4. ADDITIONAL INFORMATION: Support materials.**

Feel free to include support materials (texts, photographs, video) and letters of reference to support your application.

GOOD LUCK!

Call with questions!

Ready to enter?

Use this checklist to prepare.

- Step 1.** Referring to the rules on team composition, assemble your Iron Science team.
- Step 2.** Complete an entry form based on the guidelines, and submit it to the science centre hosting the playoff event closest to you.
- Step 3.** If your team is chosen, you will be briefed on the secret ingredient, the stage, its setting, and event expectations. You will have at least three weeks to prepare your presentation.
- Step 4.** Remember, audience applause is worth points. Get ready to engage them!
- Step 5.** Bring your team to the science centre for a rehearsal the day prior.
- Step 6.** Arrive back at the science centre on the morning of the event and get ready to entertain! If you win, book two days off to travel to the finals on November 21, all expenses paid.

Questions or concerns about the finals?

Contact:
Mary Anne Moser, Chair
Iron Science Steering Committee
403-949-3306 or 403-629-3255
moser@ucalgary.ca

Regional dates and deadlines

PLAYOFF LOCATION	ENTRY DEADLINE	PLAYOFF DATE
Discovery Centre – Halifax	Sept 22	Oct 17
Science World at TELUS World of Science – Vancouver	Sept 22	Oct 24
Canada Science and Technology Museum – Ottawa	Sept 22	Oct 24
TELUS World of Science – Edmonton	June 6	Nov 5
Manitoba Museum – Winnipeg	Sept 26	Nov 6

Contacts

TELUS World of Science – Vancouver

Connie Cirkony
ccirkony@scienceworld.ca
(604) 443-7474



TELUS World of Science – Edmonton

Laura Van Schaick
ironscience2008@telusworldofscienceedmonton.com
(780) 452-9100 ext 2338



Manitoba Museum – Winnipeg

Scott Young
scyong@manitobamuseum.ca
204-988-0627



Canada Science and Technology Museum – Ottawa

Sandra Corbeil
(613) 990-4043
scorbeil@technomuses.ca



Discovery Centre – Halifax

Judith Kays
(902) 492-4422 ext 236
judithkays@discoverycentre.ns.ca



More information

If you would like more information on what is involved in the event, check out the web site at www.ironscience.ca. You can view last year's event, download lesson plans, and see pictures of others teams. Contact your science centre or the national event organizers with questions. We'd love to hear from you!