



The Science Teachers' Association of Manitoba
Science SAG 2009
St. John's-Ravenscourt School, 400 South Drive

PROGRAM

October 22, 2009

9:00 a.m.–3:30 p.m.

Special Pre-Conference Workshop

October 23, 2009

Times vary

Off-site Sessions

Times vary

Full Day Sessions

9:00–10:15 a.m.

9:00–11:30 a.m.

10:45 a.m.–12:00 p.m.

Morning Sessions

11:30 a.m.–1:00 p.m.

Lunch

1:00–2:15 p.m.

1:00–3:30 p.m.

2:30–3:45 p.m.

Afternoon Sessions

Important: View new sessions on the STAM website. For complete session descriptions, details on new sessions, session cancellations, and full sessions visit the STAM website at www.stam.mb.ca.

October 22, 2009

9:00 a.m.–

3:30 p.m.

**Special
Pre-Conference
Workshop**

**SC01 Manipulation
of Genetic Materials**
Dr. Francis Amara, Associate
Professor and Educational
Specialist, Faculty of Medicine

Come out and explore the Biomedical Youth Program's Inner-City Science Centre. This centre is equipped with the latest scientific and research instruments, and core facilities to provide and enhance biological, medical and human health science activities, and to meet any curriculum demands from kindergarten to Grade 12 and beyond. Experience hands-on explorations with DNA. Participants must pre-register.

On-site registration **not** available.

Code: SC01 **Level:** 9–12

Cost: \$25 for STAM members
\$40 for non-STAM members

Location: Inner-City Science Centre
Niji Mahkwa School,
450 Flora Avenue

8:00–9:00 a.m.

**Manitoba Association of
Physics Teachers (MAPT)
Annual General Meeting**
Publishers' Display in the gym.
Nutrition Break in the gym.

**11:30 a.m.–1:00 p.m.
Lunch**

Join us for lunch! Enjoy a fabulous catered lunch. Tickets must be purchased in advance.

Off-Site Sessions

Times and locations vary.

Catered lunch **not** available.

Participants must pre-register for off-site sessions. Registration **not** available at off-site sessions.

SC02

Sustainability Challenge

10:00 a.m.–3:30 p.m.

Code: SC02 **Level:** General

Location: Meet your guide at Oak Hammock Marsh Interpretive Centre at 10:00 a.m. Cafeteria available. Dress for the weather.

SC03

Project WET Workshop

10:00 a.m.–3:30 p.m.

Code: SC03 **Level:** General

Location: Meet your guide at Oak Hammock Marsh Interpretive Centre at 10:00 a.m. Cafeteria available.

**SC04 The Changing Face
of Zoo Education**

9:30–11:30 a.m.

Scott Gray and Christina Jones,
Assiniboine Park Zoo/Zoological
Society of Manitoba

Code: SC04 **Level:** General
Location: Assiniboine Park Zoo Classroom Outpost

SC05 Sparking Kids' Creative Learning

9:30–11:30 a.m.

Sara Hancheruk and Corinne Gueret, Manitoba Children's Museum

Code: SC05 **Level:** K–4

Location: Meet at the Manitoba Children's Museum

shancheruk@childrensmuseum.com

Repeated Session

SC06 Sparking Kids' Creative Learning

1:30–3:30 p.m.

Sara Hancheruk and Corinne Gueret, Manitoba Children's Museum

shancheruk@childrensmuseum.com

Code: SC06 **Level:** K–4

Location: Meet at the Manitoba Children's Museum

Repeated Session

SC07 Exploring the Sea with IMAX 3D

9:00 a.m.–12:00 p.m.

Brendene Barkley, River East Transcona School Division

Code: SC07 **Level:** K–7

Location: IMAX Theatre, Third Floor Portage Place

SC08 Life's Great Outdoors: Free School Programs in Your Favourite Park

1:00–3:30 p.m.

Morgan Hallet, Lindsey Mitton and Madelyn Robinson, Manitoba Conservation, Manitoba Provincial Parks

Dress for the weather.

Morgan.Hallett@gov.mb.ca

Code: SC08 **Level:** K–8

Location: Meet at Birds Hill Provincial Park Interpretive Workshop

SC09 The Relationship Between the Human Body and Health: Test Your Lungs

1:00–3:30 p.m.

Dr. Francis Amara, Associate Professor and Educational Specialist, Faculty of Medicine

Code: SC09 **Level:** 4–6

Location: Inner-City Science Centre, Niji Mahkwa School, 450 Flora Avenue

SC10 Creek Stewardship

9:30 a.m.–12:00 p.m.

Amber Wiegand, Assiniboine Watershed Network

awiegand@winnipeg.ca

Code: SC10 **Level:** 5–12

Location: Grants Old Mill, 2777 Portage Dress for the weather.

SC11 Differential Staining and Digital Imaging of Human Cancer Cells

9:00–11:30 a.m.

Dr. Francis Amara, Associate Professor and Educational Specialist, Faculty of Medicine

Code: SC11 **Level:** 7–9

Location: Inner-City Science Centre, Niji Mahkwa School, 450 Flora Avenue

SC12 GPS, GIS and Geocaching

10:00 a.m.–3:30 p.m.

Location: Meet your guide at Oak Hammock Marsh Interpretive Centre at 10:00 a.m.

Cafeteria available. Dress for the weather.

Code: SC12 **Level:** 9–12

9:00 a.m.–11:30 p.m. Morning sessions

SC13 Overlapping Interests: When Art and Science Meet

Barbara McMillan and David McMillan, University of Manitoba

Code: SC13 **Level:** General

Please bring a digital camera.

SC14 Robotics and Curriculum

Melanie Meade, Spectrum Educational

mmeade@spectrumed.com

Code: SC14 **Level:** General

Repeated Session

SC15 The Story of Wind Don Metz, University of Winnipeg, and Kim Rapko, Lord Selkirk S.D.

d.metz@uwinnipeg.ca

Code: SC15 **Level:** K–8

SC16 Grade 8 Lake Winnipeg Water Stewardship Unit

Chery Boguski and Vera Tardiff, Charleswood Junior High

Code: SC16 **Level:** 5–8

SC17 Build a Competitive Mini Sumo Robot

Herb Reynolds, Manitoba Robot Games

herb@mbrobotgames.ca

Code: SC17 **Level:** 6–12

SC18 The Woodland Caribou of Eastern Manitoba: Using Science and Education to Help a Threatened Species in the Boreal Forest

Bob Austman and Brian Kotak, Manitoba Model Forest

baustman@granite.mb.ca

Code: SC18 **Level:** 9–12

Repeated Session

SC19 A Demo A Day Keeps the Students at Bay

Matthew Wiebe, Lord Selkirk School Division

Code: SC19 **Level:** 10–12

SC20 An Introduction to Medical Physics

Dr. Daniel Rickey, CancerCare Manitoba

daniel.rickey@cancercare.mb.ca

Code: SC20 **Level:** 9–12

SC21

Science and Robotics

Robert Clarke, Intelitek

rclarke@intelitek.com

Code: SC21 Level: 9–12

Repeated Session

SC22 Telescope Make and Take

Dan Wright and Jen Piasecki, Fort Richmond Collegiate

Code: SC22 Level: 9–12

9:00–10:15 a.m. Morning sessions

SC23 Real Science

Helaine Becker

helbeck@rogers.com

Code: SC23 Level: General

Repeated Session

SC24

Climate Matters: The Scoop on Climate Change

Curt Hull,

Climate Change Connection

curt@climatechangeconnection.org

Code: SC24 Level: General

Repeated Session

SC25

Slow the Flow and other middle years programs at FortWhyte Alive

Katrina Froese, Fort Whyte Alive

kfroese@fortwhyte.org

Code: SC25 Level: 5–8

SC26 Using Computer Animations to Model Particle Behaviour in Chemistry

Harvey Peltz, River East Transcona School Division, and Paul Dyrland, St. James School Division

Code: SC26 Level: 9–12

SC27 Genes in a Bottle

Tumay Basar and Kelty Findlay, Bio-Rad Laboratories

tumay_basar@bio-rad.com

Code: SC27 Level: 9–12

SC28 Engineers Without Borders Workshop: Water for the World

Kelsey Hargreaves, Engineers Without Borders, University of Manitoba

kelseyhargreaves@yahoo.ca

Code: SC28 Level: 9–12

SC29 PALCIK Lab Safety

James Palcik,

PALCIK Educational Products Ltd.

james@palcikeducational.com

Code: SC29 Level: 9–12

10:45 a.m.–12:00 p.m. Morning sessions

SC30 It's Magic! Astounding Tricks that Teach Math and Science

Helaine Becker

helbeck@rogers.com

Code: SC30 Level: General

Repeated Session

SC31 Climate Matters: The Scoop on Climate Change

Curt Hull,

Climate Change Connection

curt@climatechangeconnection.org

Code: SC31 Level: General

Repeated Session

SC32 EdGEO: Workshops for Grades 4 and 7

Jeff Young, Department of Geological Sciences, University of Manitoba

Code: SC32 Level: K–8

Repeated Session

SC33 Parks Canada's Science Educational Resources

Lise Boiteau, Parks Canada

lise.boiteau@pc.gc.ca

Code: SC33 Level: 5–8

SC34 Programme for international student assessment (PISA): Results for Manitoba in Science

Ken Clark, Manitoba Education, Citizenship and Youth

Code: SC34 Level: 9–12

SC35 Chemistry: Matter and Change 2008 An Overview of Resources

Sid Greenstone, Steinbach Regional Secondary School/McGraw Hill Ryerson

Code: SC35 Level: 9–12

SC36 Physics Teachers "Bear Pit" Session

Brian Dentry, River East Transcona School Division

Code: SC36 Level: 9–12

SC37 Manitoba Envirothon: Environmental Education in Action!

Lisa Tack,

Manitoba Forestry Association

envirocoordinator@mts.net

Code: SC37 Level: 9–12

SC38 pGLO Bacterial Transformation Kit

Tumay Basar and Kelty Findlay, Bio-Rad Laboratories

tumay_basar@bio-rad.com

Code: SC38 Level: 9–12

1:00–3:30 p.m. Afternoon sessions

SC39 Robotics and Curriculum

Melanie Meade,

Spectrum Educational

mmeade@spectrumed.com

Code: SC39 Level: General

Repeated Session

SC40 Flight! A Historical Scientific Approach

Christopher Neufeldt and Barbara McMillan, University of Manitoba
Code: SC40 Level: 5–8

SC41 The Woodland Caribou of Eastern Manitoba: Using Science and Education to Help a Threatened Species in the Boreal Forest

Bob Austman and Brian Kotak, Manitoba Model Forest
baustman@granite.mb.ca
Code: SC41 Level: 9–12
Repeated Session

SC42 Teaching The Particle Model of Electricity for Grade Nine

Don Metz, University of Winnipeg, and Cliff Dann, Dakota Collegiate
d.metz@uwinnipeg.ca
Code: SC42 Level: 9–12

SC43 Science and Robotics

Robert Clarke, Intelitek
rclarke@intelitek.com
Code: SC43 Level: 9–12
Repeated Session

**1:00–2:15 p.m.
Afternoon sessions****SC44 Testing Spaghetti Bridge Structures**

Lindsay Gigian, Don Spangelo and Glenn Penner, Manitoba Hydro/Association of Professional Engineers and Geoscientists of Manitoba (APEGM)
lgigian@hydro.mb.ca
Code: SC44 Level: General

SC45 Real Science Helaine Becker

helbeck@rogers.com
Code: SC45 Level: General
Repeated Session

SC46 EdGEO: Workshops for Grades 4 and 7

Jeff Young, Department of Geological Sciences, University of Manitoba
Code: SC46 Level: K–8
Repeated Session

SC47 Education for Sustainable Development: Kindergarten to Grade 12

Anne MacDiarmid, Manitoba Education, Citizenship and Youth
Code: SC47 Level: K–12

SC48 Blood Groups Make and Take

Dave Shoemsmith and April Tremblay, Westwood Collegiate
Code: SC48 Level: 9–12
Repeated Session

SC49 Physics Mystery Equipment

Heidi Werner, St. James Collegiate, and Cliff Dann, Dakota Collegiate
Code: SC49 Level: 9–12

SC50 Using Manipulatives in Chemistry to Simulate Grade 11 and 12 Chemistry Concepts

Gayle Peters, College Sturgeon Heights Collegiate, and Brian Hayward, St. James Collegiate
Code: SC50 Level: 9–12

**2:30–3:45 p.m.
Afternoon sessions****SC51 Severe Weather in Manitoba**

Dale Marciski, Meteorological Service of Canada: Environment Canada
dale.marciski@ec.gc.ca
Code: SC51 Level: General

SC52 Science Assessment in the St. James School Division

Jason Braun, St. James School Division
Code: SC52 Level: General

SC53 Glencoe Biology 2009: An Overview of the Textbook and Its Resources

Sid Greenstone, Steinbach Regional Secondary School/McGraw Hill Ryerson
Code: SC53 Level: 9–12

SC54 It's Magic! Astounding Tricks that Teach Math and Science

Helaine Becker
helbeck@rogers.com
Code: SC54 Level: General
Repeated Session

SC55 Blood Groups Make and Take

Dave Shoemsmith and April Tremblay, Westwood Collegiate
Code: SC55 Level: 9–12
Repeated Session

SC56 Physics Teachers' Favourites

Rob Striemer, Shaftesbury High School
Code: SC56 Level: 9–12

SC57 Safety and Storage in the Chemistry Lab

Catherine Sperling Dreyer, Boreal Northwest, Sargent-Welch, Wards Natural Science
catherine_dreyer@vwreducation.com
Code: SC57 Level: 9–12

REGISTRATION

View new sessions on the STAM website.

For complete session descriptions, details on new sessions, session cancellations, and full sessions, visit the STAM website at: www.stam.mb.ca

Enjoy a nutrition break while visiting the Publishers' Displays in the gym.

Reception

3:30–4:30 p.m.

Meet science colleagues from across the province. Be on hand for door prize draws at 4:00!

Registration/ membership Information PLEASE READ CAREFULLY

Note: Sessions are reserved at the time of registration. A limited number of spaces for sessions may be available for STAM members only at the registration desk (St. Johns' Ravenscourt School only) on Friday, October 23, 2009. If you would like to attend a particular session, please register early. Changes to the program may be viewed on the STAM website: www.stam.mb.ca.

STAM Membership 2009–2010

General \$20.00
Student \$20.00

Please note membership fees may be paid in conjunction with the conference fee.

Membership includes:

- Access to online journals
- reduced SAG conference fees
- reduced science workshop/in-service fees

Special Pre-Conference Session, Thursday, October 22, 2009

Full Day Workshop Fees

STAM Member \$25.00
Non-Member \$40.00
Student (non-member) \$20.00
(free with STAM membership)

Friday, October 23, 2009

Full Day Conference Fees

STAM Member \$30.00
Non-Member \$49.00
Student (non-member) \$25.00
(free with STAM membership)

Note: There is no charge for students who are STAM members (including those who pay for their membership at time of registration). Please show student card.

Half Day Conference Fees

STAM Member \$15.00
Non-Member \$34.00
Student (non-member) \$15.00
Lunch \$14.00
(not available at off-site sessions)

(Lunch tickets will **not** be available for purchase at the conference. Tickets must be pre-ordered with your conference registration.)

Note: For regular members, your total cost for the conference, including a STAM membership, is \$50.00 (\$64.00 with lunch). For students who pay for a STAM membership, your total cost is \$20.00 (for the STAM membership—no charge for conference).

Late and On-Site Registrations

Registrations postmarked after October 1 or completed on-site will be assessed a \$10.00 fee. On-site registration is available for STAM members only. (Memberships may be purchased on-site.)

How to Register

- Please complete the registration form and return with cheque or money order payable to the Science Teachers' Association of Manitoba (STAM).
- Include stamped, self-addressed envelope to receive confirmation of your registration through the mail. E-mail confirmations will be sent to all other participants. E-mail address must be included on registration form.
- Registration must be post-marked by October 1 to ensure receipt of a confirmation.
- Registration is not confirmed until payment is received. Late registrants will receive their session information at the conference registration desk.
- Late registrants will be charged a \$10.00 administration fee.
- Write only one cheque to cover the cost of the conference and the STAM membership fees (if required).
- Faxed registrations will not be accepted.
- **Remember:** Registration is on a first-come basis and some sessions fill up quickly. Please provide a second and third choice of session. Check the STAM website (www.stam.mb.ca) for updates on new sessions, full sessions and cancelled session.

Mail registrations to:

STAM SAG Conference Coordinator
3 Davis Place
St. Andrews, MB R1A 2X1