

## Toronto CMOS Chapter 2017 Education Program Report

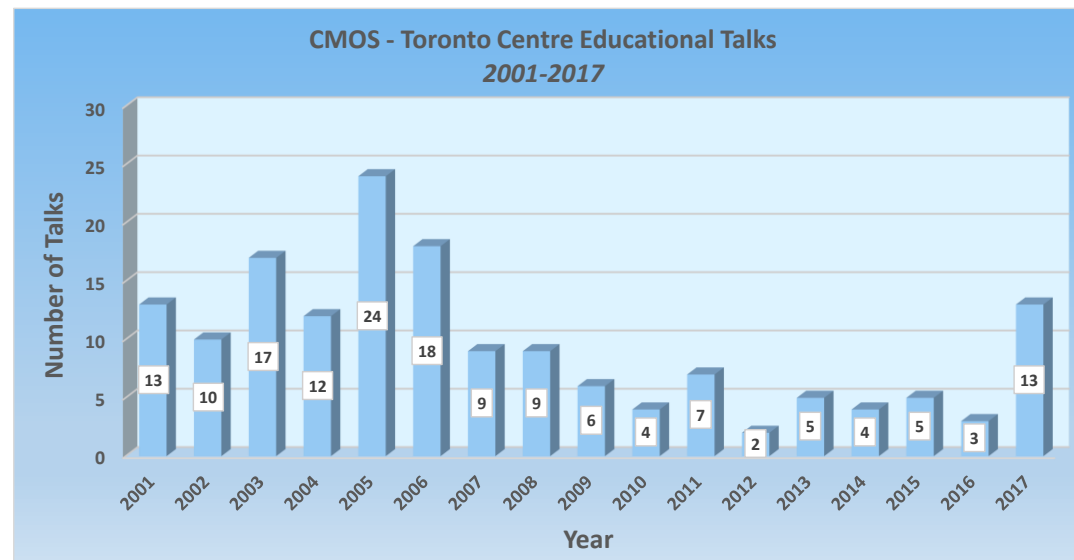
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### Summary:

A significant amount of effort was required to successfully deliver on the Toronto CMOS Education Outreach program this past year. Climate and climate change presentations were developed specifically for Grades 7/8 and 10, which can be shared with other Toronto CMOS Chapter presenters, as needed. Thirteen presentations (including a York University student networking seminar event) were delivered in 2017, with 11 presentations already scheduled through April 2018 (including a CMOS seminar and luncheon at University of Toronto). A CMOS educational exhibit was also set up in Environment and Climate Change Canada, Toronto.



Note: Rob Kuhn, Environment and Climate Change Canada delivered all presentations in 2015 and 2016: 7 presentations to elementary schools, 1 presentation to the Cambridge Rotary Club.

**Specifics:**

Zheng Qi Wang arranged a York University student networking event in March 2017. Amir Shabbar and Paul Kushner, with assistance from Ana Sousa (University of Toronto), Oscar Koren and Joan Klaassen, planned a CMOS seminar and luncheon event at the University of Toronto for February 2018. Rob Kuhn (Environment and Climate Change Canada (ECCC), Toronto) delivered 8 presentations to elementary and high school students, on behalf of ECCC and CMOS. Rob and Geoff Coulson, ECCC Warning Preparedness Meteorologist, kindly shared their presentations with Joan Klaassen, for use in CMOS presentations by other presenters.

Joan Klaassen developed and delivered 2 elementary school climate and 2 elementary school climate change presentations. A climate change presentation was also developed for an additional 2 high school climate change presentations booked for early 2018. A STEM (Science, Technology, Engineering and Mathematics) presentation was arranged by Joan with the Durham District School Board Science, Technology Program Facilitator (to be delivered by Allison Barrett in April 2018).

In addition, after discussions with Oscar Koren, a CMOS photo and information exhibit was developed by Joan and set up for display at Environment and Climate Change Canada, Toronto, in an area close to the Ontario Storm Prediction Centre, National Lab for Remote Sensing, and Warning Preparedness Meteorologist office. Thanks to Bob Jones for providing the requested high resolution digital photos for the display.

A number of steps were taken by Joan Klaassen to arrange for school presentations to be made on behalf of CMOS. They included:

- Reviewing climate, climate change and weather-related (i.e. natural hazards) topics in Ontario's science and geography elementary and secondary school curriculum (available from web).
- Obtaining York Region elementary and high school principal and teacher contact information from the web (i.e. climate and climate change science/geography teachers); initial contact by phone and emailing June 2017 with follow up and additional school contacts in September 2017.
- Contacting Environment and Climate Change meteorologists Geoff Coulson (warning preparedness) and Rob Kuhn (Ontario Storm Prediction Centre) for their assistance in delivering presentations on behalf of CMOS as well as Environment and Climate Change (i.e. specific mention of CMOS within their presentations). A sincere thanks to both for their assistance.
- Meeting with elementary, high school teachers (in person); Durham District School Board Science & Technology Facilitator (phone); Association for Canadian Education Resources (ACER) president Alice Casselman (phone) to discuss requirements for CMOS education outreach to students. ACER also agreed to promote the CMOS educational outreach program (although there is no confirmation that this was done).

- Contacting Sarah Knight for her Toronto CMOS Teachers' Day contact information (e.g. school boards). Based on advice provided by ACER, direct contact with school principals and teachers was made instead of at the school board level.
- Developing 1 hour climate presentation specific to Grades 7/8 geography curriculum requirements (also reading relevant textbook material, provided by teacher).
- Developing 1 hour climate change presentation specific to Grades 7/8 geography curriculum requirements, with science information updated through November 1, 2017 (also reading relevant textbook material, provided by teacher; updating climate change science literature review).
- Developing 1 hour climate change presentation specific to Grade 10 science curriculum requirements, with science information updated through January 1, 2018 (also reading relevant textbook material, provided by teacher; updating climate change literature review).
- Developing comprehensive list of climate change resources for elementary and secondary school teachers (requested by teachers).
- Contacting Scouts Canada (email and phone), providing information for CMOS weather, climate and climate change education outreach to local groups. The CMOS education program information was distributed within Scouts Canada to the Toronto Council leadership and subsequently to local groups.

A total of 13 education outreach presentations and events were delivered in 2017, with an additional 11 already booked for 2018.

The 2017 presentations include:

- 12 weather, climate, climate change education outreach presentations to elementary school students (Grades 6, 7, 8)
- 1 student seminar and networking event at York University (March 23, 2017)

Important observations were made from the contacts made by Joan Klaassen:

- Teachers want presentations specific to their curriculum material. The expectation is that YOU will be teaching the material for them, rather than giving a presentation which is supplementary to the curriculum. This appears to be different from what Rob Kuhn has experienced in Waterloo Region.
- Teachers only want these presentations given during a 2-3 week period when they're teaching the specific unit (e.g. climate, climate change). This appears to be different from what Rob Kuhn has experienced in Waterloo Region.
- Most of the York Region school teachers and principals did not reply to the initial or follow up CMOS education outreach request. There was no response from Durham District schools. It may be difficult to engage these schools when the requests come from an 'unknown'.

- Weather was removed from the Ontario school curriculum in 2008. Although Natural Hazards are now included in the curriculum, there was little to no interest in having weather presentations for the students.
- Scouts Canada however is definitely interested in presentations on weather and severe weather safety.