

Michigan Geological Survey Report 8 from the K-12 Outreach Director, Peter Voice [March 28, 2014]

New Items:

1. Mar. 14th. Survey Meeting – presented Report 7.
2. Mar. 14th. Contacted by Amanda Silic, Detroit Public Safety Academy to arrange a visit to her 9th grade biology students. Hydrogeology module. I am still working on scheduling the event.
 - a. Scheduled for April 15th for 36 students
 - b. Still working on scheduling staff for the event.
3. Mar. 17th. Met with Andrea Bair (Delta College) and John Yellich to discuss potential collaboration for CoreKids Program
 - a. I plan on giving her my teacher contacts information for the Bay City, Midland and Saginaw areas.
 - b. We will make up a set of core pumps for her use
 - c. We also have tentatively offered her an unpaid Research Associate position with the Survey.
4. Mar. 17th. Tom Howe led an outreach event to Mattawan Middle School.
 - a. 150 students and 1 teacher (6th Grade) – Michigan Geologic Resources Module
5. Mar. 18th. Ann Gilchrist and I led an outreach event at Okemos High School.
 - a. 30 students (9-12 grades) and 1 teacher (Dave Chapman)
 - b. First test of the hydraulic fracking module – went very well.
6. Mar. 18th. Jerry VanNocker (K.G.M.S.) contacted me and asked me to coordinate with Cheryl Hoogewind (Calvin College) in terms of University outreach at the K.G.M.S. Annual Show.
 - a. I contacted Cheryl via email and exchanged lists of activities that each group would have at the show.
7. Mar. 19th – 20th. Petroleum Technology Transfer Council Meeting
 - a. Took extra hydraulic fracking demonstration kits (made up for Okemos High School but not used) to both the Speakers-Sponsors Dinner and to the Meeting. Set up a booth with CoreKids brochures.
 - b. Mar. 20th – at speakers dinner, presented the Hydraulic Fracking Hands-on apparatus (35 attendees)
 - c. Mar. 21st – set up a booth for CoreKids during the PTTC Meeting – a large number of the conference attendees examined the hydraulic fracking hands-on apparatus (Conference had 228 attendees).
8. Mar. 19th. I contacted Suzanne Lutwick and Jennifer Callahan to arrange to set up a meeting next week to discuss CoreKids funding proposals.
9. Mar. 19th. I updated the metrics with the raw data from Dave Chapman's class (Okemos) and Karin Fender's class (Mattawan)
10. Mar. 24th – Scheduled meeting with Sita Karki to discuss revamping the CoreKids website
11. Mar. 24th – Scheduled a meeting with Suzanne Lutwick –Thursday March 27 at 4:00 pm to discuss grant proposals.
12. Mar. 24th – Linda Harrison contacted me about the Michigan Oil and Gas Association Meeting April 17th and suggested the possibility that CoreKids/Michigan Geological Survey have a booth in the exhibition hall.

- a. Linda managed to negotiate a booth rate of \$350 as we are a non-profit group (booths were supposed to be \$550).
- 13. Mar. 24th – Keith Agdanowski (K.G.M.S.) contacted me about their May 24th CoreKids event – for confirmation that the event will be running. I replied yes and gave him an preliminary itinerary for the event.
- 14. Mar. 27th – Contacted by DeEtta Crane, Greater Heights Academy, Flint to organize an event at her school. Waiting on scheduling her visit.
- 15. Mar. 27th – updated metrics and CoreKids Summary Binder
- 16. Mar. 27th – I contacted Amanda Paige (Library Outreach Program Manager) of the Univeristy of Michigan Museum of Natural History to discuss potential collaboration and partnership.
- 17. Mar. 27th – Met with Suzanne Lutwick (WMU Foundation)
 - a. Discussed status of Toshiba and Honda Foundation Proposals
 - i. She is expecting a response in the next week or two
 - b. Discussed DTE Foundation – she is going to try to contact them
 - c. Discussed Potential Foundation Proposals for MGRRE – I have left a folder for Linda Harrison and sent her an email.
 - d. We discussed the Felpausch Foundation – a Mi-based foundation with interests in Science Education as our next target – Suzanne Lutwick will work on preparing a proposal next week.
 - i. She would recycle the America Honda Foundation proposal with revised CoreKids data from me
 - e. We discussed the PTTC meeting and the upcoming Michigan Oil and Gas Association Meeting
 - i. Possibly have WMU Foundation develop a Sponsorship Brochure with different sponsorship levels
 - 1. I will get back to Suzanne Lutwick with a description of our recommended sponsorship levels and descriptions of the benefits for the sponsors at each level
 - ii. Have a WMU Foundation person associated present at the CoreKids Booth at MOGA
 - f. We discussed Michigan Department of Education Grants – she suggested that I contact Carroll Nelson (Sponsored Programs Office, OVPR).
 - g. I will work on putting together a complete digital copy of the CoreKids Overview Binder, so that Suzanne can have a copy to refer to and use to develop future proposals.

Current Totals

Total K- 12 Student Interactions (As of July 2013)	2600
Total Adult Interactions (As of July 2013: Chaperones and teachers at events)	74
WMU Hydrogeology Field Trip; CMU Petroleum Geology Class (College Students); Saudi Arabia Geological Survey Visit; WMU Geology Club	69
PTTC Workshop and Speakers Dinner	263

Total Teacher Interactions (As of July 2013: MESTA Annual Conference, Other Contacts, Workshop, MSTA Annual Conference)	470
K.G.M.S. Seminar Series, etc.	45
Cranbrook Institute Dinosaur Festival (all ages)	3330
Kalamazoo Air Zoo Events	12
Gardner Family Visit to MGRRE (4 adults, 3 children)	7
STEM-ulating Career Day, WMU (33 children, 18 adults)	51
Pack 291 Webelos (2 children, 3 adults)	5
<u>Total:</u>	<u>6,926</u>

Projected Totals of Upcoming Events

Scheduled School Visits:	277
Cranbrook Institute of Science Spring Break Earth Week Festival	~1,200
Michigan Oil and Gas Association Annual Meeting	~400
DEQ Earth Day Festival:	~3,300
K.G.M.S. Annual Show:	~1,500
K.G.M.S. Seminar Series May Event	30
Branch Co. Library System	150?
Kalamazoo Air Zoo Summer Events	40?
<u>Total Projected:</u>	<u>6,897</u>
<u>Total Projected + Actual</u>	<u>13,823</u>

a. Past Outreach Events (During Voice Tenure as Director, K-12 Outreach)

- i. July 30th – Cub Scout Group, Kalamazoo MGRRE Tour
- ii. Aug. 5th – WMU Hydrogeology Camp MGRRE Tour
- iii. Aug. 22nd – Lego Robotics League MGRRE Tour (Natural Hazards – Impacts Module)
- iv. Sept. 11-13th – Cranbrook Institute of Science Rouge River Festival (Hydrogeology Module)

- v. Oct. 4-6th – Michigan Earth Science Teacher Association/Michigan Alliance of Environmental and Outdoor Educators Annual Meeting
- vi. Oct. 14th – Loaned Module to Kalamazoo Geological and Mineral Society for a School Visit – Star Elementary, Plainwell
- vii. Oct. 21st – Scheduled School Visit - St. Mary Visitation School, Bryon Center (Michigan Geologic History Module)
- viii. Oct. 25th – Petroleum Geology Class, Central Michigan University – MGRRE Tour
- ix. Oct. 30th – Kalamazoo Reformed Heritage Christian School MGRRE Tour
- x. Nov. 1st – MGRRE Online Education Portal Workshop
- xi. Nov. 1st - Okemos High School Geology Class MGRRE Tour
- xii. Nov. 5th – Saudi Arabia Geological Survey MGRRE Tour
- xiii. Nov. 11th – Scheduled School Visit, Upton Middle School, St. Joseph (Michigan Geologic History Module)
- xiv. Nov. 12th and 14th – Scheduled School Visit, Gull Lake Middle School (Michigan Geologic History Module)
- xv. Nov. 16th – Kalamazoo Geological and Mineral Society Lecture Series – MGRRE talk and tour
- xvi. Nov. 18th – Scheduled School Visit, St. Francis School of Ann Arbor (Michigan Geologic History Module)
- xvii. Nov. 20th – WMU Geology Club Tour
- xviii. Dec. 11th – Scheduled School Visit, St. Francis of Ann Arbor (Natural Hazards – Earthquakes Module)
- xix. Dec. 12th-13th- Scheduled School Visit, Upton Middle School, St. Joseph (Natural Hazards – Earthquakes Module)
- xx. Dec. 26th – Dec. 30th – Cranbrook Institute of Science Fossil Festival (Michigan Fossils Module)
- xxi. Dec. 30th – Kalamazoo Air Zoo Digging Michigan Camp (Michigan Fossils Module)
- xxii. January 18th – WMU STEMulating Career Day (Michigan Geologic History Module)
- xxiii. Jan. 21st – Scheduled School Visit, Gull Lake Middle School (Natural Hazards: Earthquakes Modules)
- xxiv. Jan. 22nd – Scheduled School Visit, Gull Lake Middle School (Natural Hazards: Earthquakes Module)
- xxv. Jan. 25th – Dr. Hampton borrowed CoreKids equipment for outreach event with a Webelos Scout Pack.
- xxvi. Feb. 8th – Kalamazoo Geological and Mineral Society Seminar Series (MGRRE)
- xxvii. Feb. 11th – Grand Haven Public Schools – MGRRE Tour
- xxviii. Feb. 14th – Scheduled School Visit, Berkshire Middle School
- xxix. Feb. 28th – Schedule School Vist, Gull Lake Middle School
- xxx. Mar. 3rd - Scheduled School Visit, Gull Lake Middle School
- xxxi. March 5th – Scheduled School Visit, Hastings Middle School
- xxxii. March 6th -8th -Michigan Science Teachers Association Annual Meeting

- xxxiii. March 17th – Scheduled School Visit, Mattawan Middle School (Tom Howe)
- xxxiv. March 18th – Scheduled School Visit, Okemos High School
- xxxv. March 19th -20th – Michigan Section of the Petroleum Technology Transfer Council Spring Meeting

b. Upcoming Events

- i. March 28th – Scheduled School Visit, Lake Shore High School
- ii. April 1st – Scheduled School Visit, Northwestern Middle School, Battle Creek
- iii. April 8th-11th – Cranbrook Earth Week Festival?
- iv. April 9th – Hydraulic Fracking Demo at MBGS Meeting
- v. April 15th – Scheduled School Visit, Detroit Public Safety Academy
- vi. April 17th – Michigan Oil and Gas Association 12th Annual Michigan Petroleum Geology Conference
- vii. April 22nd -Michigan Dept. of Environmental Quality Earth Day Event
- viii. April 24th-25th -North-Central GSA Section Meeting
- ix. May 2nd –4th -Kalamazoo Geological and Mineral Society Annual Show
- x. May 24th – K.G.M.S. Grand Ledge Trip
- xi. June 18th – Quincy Branch, Branch Co. District Library
- xii. June 18th – Algansee Branch, Branch Co. District Library
- xiii. July 8th – Kalamazoo Air Zoo Eco Explorers Camp – on main campus
- xiv. July 9th – Coldwater Branch, Branch Co. District Library
- xv. July 10th – Bronson Branch, Branch Co. District Library
- xvi. July 10th Sherwood Branch, Branch Co. District Library
- xvii. July 11th – Union branch, Branch Co. District Library
- xviii. July 16th – Kalamazoo Air Zoo Eco Explorers Camp – at Air Zoo
- xix. July 17th – Coldwater Branch, Branch Co. District Library
- xx. August 12-16th – Michigan Science Teachers Association Annual Meeting

c. Fall Events (Tentative)

- i. Sept. 9-12. The Cranbrook Institute of Sciences Rouge River Festival
- ii. Oct. 10-12. Michigan Mineralogical Society Annual Show
- iii. Nov. 7-8. Gull Lake Community Schools Foundation – Sparks Series, Science and Engineering Fair.
- iv. Nov. 8 Metropolitan Detroit Science Teachers Association Meeting

d. Working on scheduling

- i. Grant Public Schools
- ii. Walled Lake Girl Scouts
- iii. Thornapple Kellogg Middle School, Middleville – wants two days 6th and 8th graders.
- iv. Mr. Brook's Brownie Troop, Kalamazoo Area
- v. St. Paul Catholic School, Grosse Pointe Farms

- vi. Arcadia Elementary School 2nd graders – Rood Hall tour.
- vii. DEQ Office of Oil, Gas and Minerals – hydraulic fracking module demonstration
- viii. Greater Heights Academy, Flint Michigan

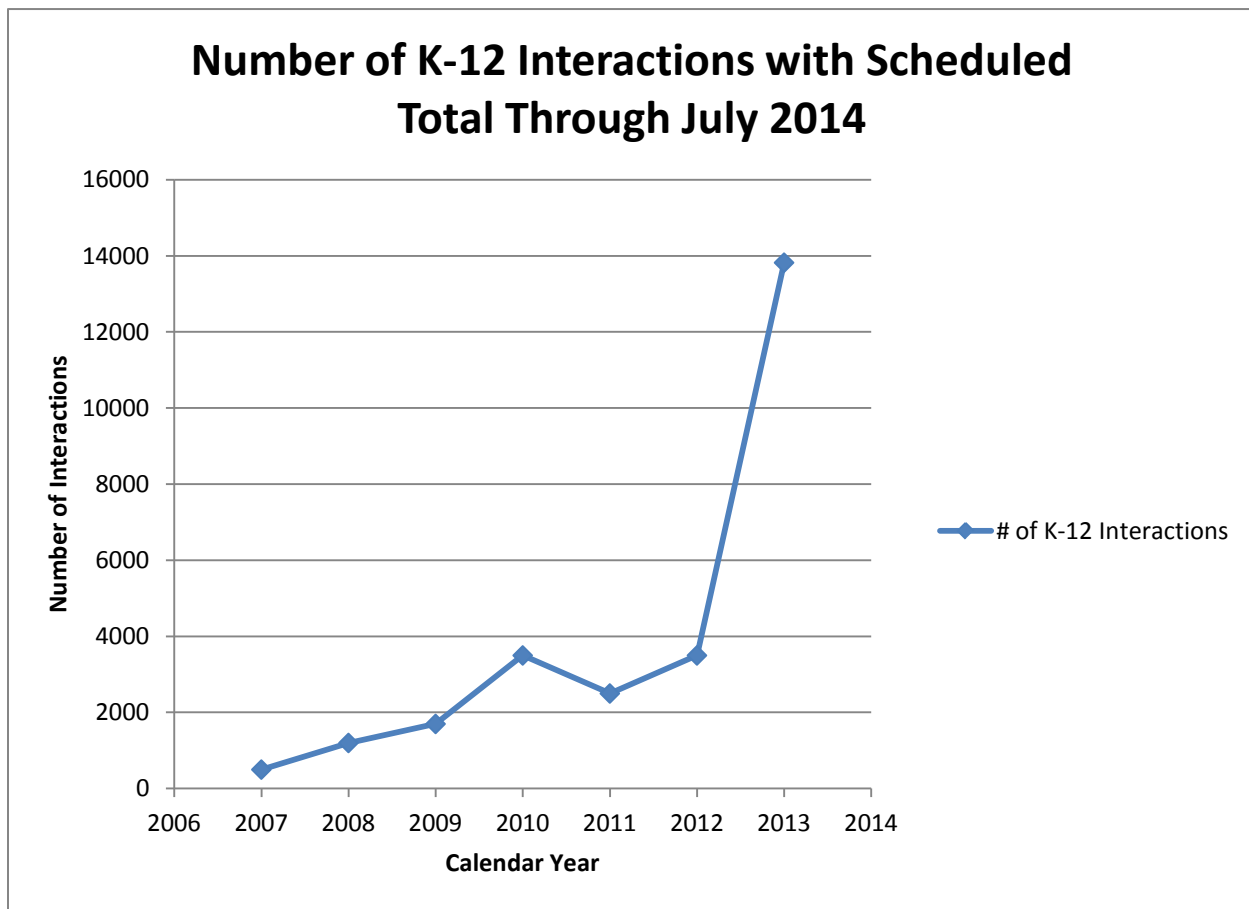


Figure 1: Estimated CoreKids totals through July, 2014. Note that the period from July, 2013 to July, 2014 generated 51% of the total interaction counts over the program’s history.