

# Michigan Geological Survey Report 22 from the K-12 Outreach Director, Peter Voice, November 30<sup>th</sup>, 2016.

## New Items:

1. June 27<sup>th</sup> – presented Report 22 to the Director of the Michigan Geological Survey
2. June 27<sup>th</sup>-29<sup>th</sup> – exchanged emails with Breanne Lejeune – scheduled meeting to discuss CoreKids Website and discussed mock versions.
3. June 28<sup>th</sup> – exchanged emails with Liam Hickey (Mattawan) – he had questions about sites in Michigan to take his grandson where they could look at geology. I sent him a list of possible day trips and lists of museums and parks to go to.
4. June 30<sup>th</sup> – Kalamazoo Nature Center Scheduled Event – MGRRE Tour and Michigan Geologic History Module. 24 students and 4 chaperones.
5. June 30<sup>th</sup> – exchanged emails with Katie Dvorak about scheduled events – informed her that the July 31<sup>st</sup> event was canceled.
6. June 30<sup>th</sup> – exchanged emails with Breanne Lejeune about CoreKids website. Exchanged emails with Sita Karki about updating the CoreKids coverage area map with events.
7. July 5<sup>th</sup> – received new map from Sita Karki. I asked her to correct a few typos. Received final version July 6<sup>th</sup>.
8. July 6<sup>th</sup> – exchanged emails with Ryan Foster about logistics of upcoming Kalamazoo Air Zoo event.
9. July 7<sup>th</sup> – exchanged emails with Maureen Schultz (Delta College) about her purchase order for a set of core pumps.
10. July 11<sup>th</sup> – exchanged emails with Breanne LeJeune about updating the text of the CoreKids website.
11. July 19<sup>th</sup> – exchanged emails with Breanne LeJeune about captions for images on the CoreKids website.
12. July 25<sup>th</sup> – exchanged emails with Allison Van Driessche (Western Middle School, Bay City) – I told her that we were unable to do CoreKids school visits for the near term.
13. July 27<sup>th</sup> – exchanged emails with Ryan Foster (Kalamazoo Air Zoo) about event logistics.
14. July 28<sup>th</sup> – Prepared CoreKids 2015-2016 Annual Report – sent it to Mohamed Sultan and John Yellich for review. They provided feedback and a revised report was sent to Breanne to place on the CoreKids website.
15. July 29<sup>th</sup> – The new CoreKids website passed the WMU audit and was made public.
16. Aug. 1<sup>st</sup> – scheduled CoreKids event – Kalamazoo Air Zoo campus tour. 12 students.
17. Aug. 1<sup>st</sup> – Made copies of the Michigan Natural Resources Production Statistics; Resources for Teachers handout for the upcoming MESTA Conference – made 25 copies.
18. Aug. 1<sup>st</sup> – exchanged emails with Steve Kaczmarek on the text of an announcement for the NSF-funded Handheld XRF short course that we are planning on running next summer. Copies were made to hand out at the MESTA meeting.

19. Aug. 4<sup>th</sup> – Presented at the MESTA Annual Meeting in Marquette – one of 4 talks through the day. Had 20 teachers attend the talk on Michigan Natural Resources.
20. Aug. 9<sup>th</sup> – exchanged emails with Ryan Foster (Kalamazoo Air Zoo) about the Aug. 29<sup>th</sup> event.
21. Aug. 12<sup>th</sup> – exchanged emails with Diane Krzyaniak (Marshall Upper Elementary, Westland, MI) – told her that we were unable to do school events.
22. Aug. 15<sup>th</sup> – exchanged emails with Jay Sinclair – he had photographed the speakers during the MESTA Conference – unfortunately his pictures were corrupted, so I was not able to get any from him.
23. Aug. 15<sup>th</sup> – prepared CoreKids article for the Geosciences Newsletter. Requested and received feedback from Linda Harrison and sent the draft to Breanne LeJeune.
24. Aug. 16<sup>th</sup> – agreed to provide a poster on MI Natural Resources to the Michigan Basin Geological Society at their Sept. 14<sup>th</sup> Meeting.
25. Aug. 16<sup>th</sup> – took NSF ethics training in support of Steve Kaczmarek’s NSF proposal for the handheld XRF.
26. Aug. 18<sup>th</sup> – exchanged emails with Heather Petcovic about talking at WMU Geosciences Graduate Student Orientation on CoreKids.
27. Aug. 21<sup>st</sup> – exchanged emails with Dave Chapman (Okemos High School) – he wanted to discuss the status of the MGRRE Portal Proposal.
28. Aug. 22<sup>nd</sup> – exchanged emails with Mike Velbel (MSU Geology) and Bill Harrison about scheduling a MGRRE tour for Mike’s class – tentatively scheduled for Oct. 15<sup>th</sup>.
29. Aug. 25<sup>th</sup>– 26<sup>th</sup> – exchanged emails with Ryan Foster about event logistics for the upcoming Kalamazoo Air Zoo event on campus.
30. Aug. 26<sup>th</sup> – exchanged emails with Nick Vanacker about the Fall MSU Museum Fossil day – provided tentative confirmation that CoreKids would be there.
31. Aug. 29<sup>th</sup> – exchanged emails with Bill Harrison, Jenny Trout, and Peter Riemersma (Grand Valley State University Geology) about the Mackinaw Bridge Cores.
32. Aug. 29<sup>th</sup> – Kalamazoo Air Zoo event. Approximately 15 students.
33. Sept. 5<sup>th</sup> – exchanged emails with Phillip Vincent, Southeastern Elementary, Hastings, MI – told him that we were unable to do school visits.
34. Sept. 6<sup>th</sup> – exchanged emails with Breanne LeJeune – requesting that she add fields in the CoreKids contact form for phone number and email address.
35. Sept. 7<sup>th</sup> – exchanged emails with Ken Agdanowski (KGMS) about scheduling the Nov. 1 KGMS meeting at MGRRE. I volunteered to give a talk on Natural Resources to the society.
36. Sept. 8<sup>th</sup> – exchanged emails with Janet Smigielski (DEQ) - they requested to borrow a set of Core pumps, which I approved.
37. Sept. 8<sup>th</sup> – exchanged emails with Brittany Burgess (U of M Museum) about possible future events.
38. Sept. 8<sup>th</sup> – exchanged emails with Keith Lang (Sturgis High School) – he was looking for ideas about field trips that he could take his class on.
39. Sept. 8<sup>th</sup> – registered for the MAEOE conference – registration waived as I am doing a field trip for the group.

40. Sept. 8<sup>th</sup> – exchanged emails with Ann Petrosky (Handy Middle School, Bay City) – told her that we were no longer doing school events).
41. Sept. 9<sup>th</sup> – met with the graduate students for WMU Geosciences Orientation – discussed CoreKids with them.
42. Sept. 9<sup>th</sup> – exchanged emails with Matt Reeves and Bill Harrison about Matt borrowing CoreKids equipment for an outreach event.
43. Sept. 9<sup>th</sup> – requested that Tom Howe print a poster for the MBGS meeting for me.
44. Sept. 12<sup>th</sup> – exchanged emails with Janet Smigielski (MI DEQ) – about logistics of borrowing core pumps.
45. Sept. 12<sup>th</sup> – Brittany Burgess (U of M Museum, MAEOE) asked me to forward a scholarship option to any interested education students. Scholarships were for attending the MAEOE meeting.
46. Sept. 12<sup>th</sup> – exchanged emails with Matt Reeves about borrowing CoreKids equipment.
47. Sept. 12<sup>th</sup> – exchanged emails with Kala Luzia (Kalamazoo Public Library) about event programming.
48. Sept. 12<sup>th</sup> – exchanged emails with Ardis Herrold about the MESTA Career Day.
49. Sept. 13<sup>th</sup> – exchanged emails with Milt Gere (Central Michigan Rock Show) – confirmed CoreKids attendance at their upcoming rock show.
50. Sept. 13<sup>th</sup> – exchanged emails with Kim Clancy (Gull Lake Middle School) – told her that we are no longer doing school visits.
51. Sept. 13<sup>th</sup> – exchanged emails with Maureen Schultz (Delta College) and Janet Smigielski (DEQ) about Core Pumps – borrowed the Delta pumps for the DEQ's use – will ship out the Delta College core pumps when they are returned.
52. Sept. 13<sup>th</sup> – exchanged emails and phone calls with Leah Warwick about the MICareerQuest Day in Kalamazoo. Tentatively confirmed that CoreKids could attend the event.
53. Sept. 14<sup>th</sup> – Presented poster on Mi Natural Resources to the meeting of the Michigan Basin Geological Society – approximately 30 people attended the meeting. Discussed Natural Resources education with MBGS president John Shook.
54. Sept. 16<sup>th</sup> – exchanged emails with Linda Harrison about student access to MGRRE – updated her on which students were helping out with CoreKids.
55. Sept. 16<sup>th</sup> – exchanged emails with Leah Warwick – confirming CoreKids presence at the MICareerQuest day.
56. Sept. 16<sup>th</sup> – sent John Yellich a copy of the Natural Resources poster to use at the upcoming Funding Announcement Event at MGRRE on Sept. 29<sup>th</sup>.
57. Sept. 16<sup>th</sup> – Matt Reeves returned the CoreKids equipment and provided the following metrics – 20 7<sup>th</sup> graders at The Gagie School, Kalamazoo.
58. Sept. 19<sup>th</sup> – 20<sup>th</sup>- exchanged emails with Bill Mitchell – he asked to borrow the Core Pumps for an Oct. 18<sup>th</sup> event at Starr Elementary School.
59. Sept. 20<sup>th</sup> – exchange emails with Ardis Herrold about the MESTA Career Day.
60. Sept. 21<sup>st</sup> – exchanged emails with Cynthia Stacy for Patrick Hamilton School, Dowagia – I informed her that we were unable to do school visits at this time

61. Sept. 21<sup>st</sup> – exchanged emails with Milt Gere about the Central Michigan Mineral Show – and a fixed display that could be available all weekend at the event.
62. Sept. 22<sup>nd</sup> – exchanged logistics emails with Nick Vanacker (MSU Museum) about the MSU Museum Fossil day.
63. Sept. 26<sup>th</sup> 27<sup>th</sup>– exchanged emails with Janet Smigielski (DEQ) about returning the core pumps. She also suggested that the DEQ would like a set of core pumps to use in their outreach events – I told her that I would have to talk to Bill Harrison about it.
64. Sept. 26<sup>th</sup> – exchanged emails with John Shook and John Yellich about the MESTA Career Day.
65. Sept. 27<sup>th</sup> – exchanged emails with Ardis Herrold (MESTA, Grosse Pointe North High School) and Linda Hensel (MI-AIPG) about the MESTA Career Day – Linda requested that CoreKids submit a funding proposal to MI-AIPG for general operating funds.
66. Sept. 28<sup>th</sup> – exchanged emails with Ashlie Smith requesting a count of attendees for the MAEOE field trip to MGRRE – she asked to wait a week to get it back to me.
67. Sept. 30<sup>th</sup> – exchanged emails with Maureen Schultz (Delta College) – requested her mailing address so I could send the core pumps to her. Jenny Trout and I trimmed the core. Jenny mailed them out on Oct. 4<sup>th</sup>.
68. Oct. 4<sup>th</sup> – exchanged emails with Nick Vanacker (MSU Museum) about Fossil Day logistics.
69. Oct. 5<sup>th</sup> –received email from Kathy Agee – the Grand Valley Fall Science Update Conference approved my abstract for their meeting and asked that I proof the description for their brochure.
70. Oct. 5<sup>th</sup> – prepared a funding proposal for CoreKids for the MI-AIPG – sent it to Linda Hensel.
71. Oct. 6<sup>th</sup> – exchanged emails with Mike Velbel (MSU) – he had a conflict with the Oct. 15<sup>th</sup> date, and asked that we reschedule, I emailed him that I would get back to him on Oct. 10<sup>th</sup> – which I did.
72. Oct. 6<sup>th</sup> – exchanged emails with Ashlie Smith (MAEOE) – she had total counts for field trip sign-ups for the meeting.
73. Oct. 9<sup>th</sup> – Scheduled joint event – MESTA-MSU Museum Fossil Day. 690 children, parents and volunteers attended the event.
74. Oct. 9<sup>th</sup> – exchanged emails with Kala Luzia (Kalamazoo Public Library) about event programming.
75. Oct. 10<sup>th</sup> – exchanged emails with Brittany Burgess (U of M Museum) about scheduling upcoming events – told her that Nov. 5<sup>th</sup> wasn't going to be a good date.
76. Oct. 11<sup>th</sup> – exchanged emails with Tom Howe – he had a request to identify a fossil in photographs and asked me to take a look.
77. Oct. 11<sup>th</sup> – exchanged emails with Maureen Schultz (Delta College) – the core pumps had arrived. One split along a stylolite during transport. I am going to work on replacing it.
78. Oct. 11<sup>th</sup> – exchanged emails with Breanne LeJeune about the Department tours Committee meeting – working on setting a time for the meeting (and an agenda).
79. Oct. 11<sup>th</sup> – received update from Nick VanAcker (Michigan State University Science Museum) – they provided a thank you to all of the exhibitors with an update on the event metrics – with volunteers, a total of 690 people attended the Fossil Day.

80. Oct. 12<sup>th</sup> – Department Tours Committee Meeting – Tom Howe, Robb Gillespie, Breanne LeJeune and I met – we decided that we needed clarification on what the committee was supposed to come up with – Our the tours for prospective students, external guests, etc.? Breanne prepared a report of our activities and submitted it to Mohamed Sultan requesting clarification.
81. Oct. 14<sup>th</sup> – Michigan Alliance of Environmental and Outdoor Educators Annual Meeting – Provided a field trip to MGRRE opportunity for the conference participants. 8 people attended the field trip.
82. Oct. 17<sup>th</sup> – exchanged emails with Ardis Herrold about logistics for the MESTA Earth and Space Science STEM Careers Day event.
83. Oct. 17<sup>th</sup> – exchanged emails with John Yellich – provided him scans of the feedback forms from the MAEOE Conference field trip.
84. Oct. 17<sup>th</sup> – exchanged emails with Jenny Trout – asked her to prepare a set of core pumps for Bill Mitchell (DEQ) to borrow for an outreach event.
85. Oct. 17<sup>th</sup> – exchanged emails with Ann Griffin (MDSTA) about their annual meeting. Told her that I was unable to attend this year.
86. Oct. 17<sup>th</sup>-19<sup>th</sup> – exchanged emails with Jeff Hawkins (Envirologic) and Duane Hampton (WMU Geosciences) about the MESTA Earth and Space Science STEM Careers Day event – discussed logistics and what our two groups were brining to the show.
87. Oct. 18<sup>th</sup> – scheduled CoreKids event – Bill Mitchell (DEQ) presented the Core Pumps to a school group at Starr Elementary School in Plainwell – approximately 20 students.
88. Oct. 18<sup>th</sup> – Eric Wildfang (DEQ) sent a reminder notice about the spring Earth Day event in 2017. I have added it to the CoreKids Calender.
89. Oct. 20<sup>th</sup> – renewed my membership in the National Science Teachers Association.
90. Oct. 20<sup>th</sup> – exchanged emails with Milt Gere about the Central Michigan Mineral Show School day – requested information on logistics for setting up my area.
91. Oct. 21<sup>st</sup> – Scheduled event, Central Michigan Mineral Show School Day – Event totals will be updated when I receive them.
92. Oct. 21<sup>st</sup> – exchanged emails with Erin Lewis (Kalamazoo Air Zoo) about possible upcoming events. Asked to hold off on confirmation, until I could double check my budget.
93. Oct. 24<sup>th</sup> – exchanged emails with Matt Reeves about rock and mineral samples for an outreach event he was doing. I prepared a set of mainly mineral samples for him to use and suggested that he contact Tom Howe about basic rock samples.
94. Oct. 25<sup>th</sup> – exchanged emails with Milt Gere – he thanked CoreKids for its participation in the Central Michigan Mineral Show School day. He forwarded me the metrics for the event – 963 students and 51 adults from 13 schools attended the show.
95. Oct. 26<sup>th</sup>-27<sup>th</sup> – exchanged emails with Fran Fink (contacted through Department of Geosciences – Kathy Wright forwarded her email to me) – she had a picture of a rock with fossils that she wanted identified. I provided an identification of the fossils and a relative age for the materials.
96. Oct. 26<sup>th</sup> – renewed my membership in the National Association of Geoscience Teachers

97. Oct. 26<sup>th</sup> – exchanged emails with Kara Stewart – event logistics for the MiCareerQuest Southwest event – where the CoreKids booth was going to be at, unloading area, water access etc.
98. Oct. 28<sup>th</sup> – exchanged emails with Mike Velbel (Michigan State University) – logistics for an upcoming class visit to MGRRE. We organized some activities for his students to do.
99. Nov. 1<sup>st</sup> and 2<sup>nd</sup> – Scheduled event – MiCareerQuest –Southwestern Career Day. CoreKids provided a booth for both days. Will append event metrics when I receive them.
100. Nov. 2<sup>nd</sup> – scheduled CoreKids event – KGMS November meeting held at MGRRE. I presented a seminar on Michigan’s Natural Resources with Production Statistics. Approximately 30 people attended.
101. Nov. 4<sup>th</sup> – exchanged emails with Bill Neal (Grand Valley State University) – about the upcoming Fall Science Update and he forwarded me their outreach newsletters.
102. Nov. 4<sup>th</sup> – exchanged emails with Matt Reeves – he returned the mineral kits. His outreach event was for the 4<sup>th</sup> grade class at Gagie School – 40 students total.
103. Nov. 4<sup>th</sup> – exchanged emails with Mary Watters (Grand Valley State University) – about registration and presentation logistics for the Fall Science Update Conference. I submitted my registration for the event.
104. Nov. 5<sup>th</sup> – Scheduled CoreKids event – Michigan State Aquifers and Reservoirs class – tour of MGRRE with Core activities. 7 students and 1 teacher.
105. Nov. 6<sup>th</sup> – I provided John Yellich and Bill Harrison the slides I presented at the KGMS meeting – John will use some of the slides in upcoming presentations on Michigan’s Natural Resources.
106. Nov. 6<sup>th</sup>-7<sup>th</sup> – exchanged emails with John Yellich – he contacted Peter Rose (MI-DNR and current Vice President for the Michigan Basin Geological Society) to suggest that my natural resources talk be added to the slate of talks that the society sponsors. Tentatively scheduled for the April meeting.
107. Nov. 8<sup>th</sup> – received event metrics for the MiCareerQuest Southwest event from Karen Robyn – Over 5,000 people attended the event!
108. Nov. 10<sup>th</sup> – exchanged emails with Ardis Herrold, Duane Hampton, and Jeff Hawkins and Therese Searles (Envirologic) about logistics for the MESTA Earth and Space Science STEM Career Day.
109. Nov. 11<sup>th</sup> – exchanged emails with Matt Reeves – he borrowed the mineral kits again for a second trip to the 4<sup>th</sup> grade at Gagie School. 40 students.
110. Nov. 11<sup>th</sup> – exchanged emails with Kathy Agee about presenter information for the Fall Science Update.
111. Nov. 11<sup>th</sup> – Scheduled CoreKids event – booth at the MESTA Earth and Space Science Career Day. Will append event metrics when they are sent to me.
112. Nov. 16<sup>th</sup> – Fall Science Update at Grand Valley State University. 14 teachers attended my talk.
113. Nov. 16<sup>th</sup> – exchanged emails with Kathy Larsen (Kalamazoo Air Zoo) – she wanted to borrow a meteorite for an Air Zoo event. I was unable to lend her one from the Geosciences collection. I provided her with some ideas on how she could fake a meteorite for the event.

114. Nov. 16<sup>th</sup> – Ardis Herrold sent the MESTA Earth and Space Science Career Day metrics to the exhibitors. 12 schools with over 400 students, teachers and chaperones attended the event.
115. Nov. 21<sup>st</sup>-22<sup>nd</sup> – exchanged emails with Kandiah Balachandran (Kalamazoo Valley Community College), Linda and Bill Harrison, and John Yellich – about outreach activities focused on Earthquake science.
116. Nov. 22<sup>nd</sup> – exchanged emails with Erin Lewis about upcoming Air Zoo events. I was able to find students to help out at two events – Dec. 22<sup>nd</sup> and Jan 5<sup>th</sup>.
117. Nov. 22<sup>nd</sup> – exchanged emails with Polly Sturgeon (Indiana Geological Survey) – she was soliciting presentations for an outreach session at North-Central GSA. I told her that I was unfortunately not going to be able to attend the meeting.
118. Nov. 30<sup>th</sup> – exchanged emails with Keith Agdanowski (KGMS) – he sent me an approximate total of attendees at the Nov. KGMS meeting at MGRRE.
119. Nov. 30<sup>th</sup> – exchanged updates with Kathy Larsen and Erin Lewis (Kalamazoo Air Zoo) about upcoming events.

## Past Totals (July 1<sup>st</sup>, 2015 to June 30<sup>th</sup>)

School events	2,348
Kalamazoo Air Zoo	59
Big Rapids Rock and Minerals Club	20
WMU Hydrogeology Field Camp	28
Branch Co. Library Program	70
Cranbrook Institute of Science Rouge River Festival	80
National Fossil Day, MSU Science Museum	400
MESTA Night at the Museum and MESTA Annual Conference (approximate values)	130
MDSTA Annual Conference	500
Central Michigan Mineral Show	837
College classes (CMU, MSU, WMU)	72
U of M Museum Events	725
Mineral Mania Event (Grosse Pointe North)	200
MLK Career Cruising Day	50

Tech Savvy Conference	36
KGMS Annual Show	4,824
Kalamazoo Nature Center Day Camp	28
Other	36
<b><u>Total Actual:</u></b>	<b>10,473</b>

## Event Totals July 1, 2016 and On

Kalamazoo Air Zoo Events	32
MESTA Annual Meeting	20
Michigan Basin Geological Society Meeting	30
School Events	120
MSU Museum Fossil Day	690
MAEOE Field Trip	8
Central Michigan Mineral Show	1,014
MiCareerQuest-Southwestern Career Days	5,000
College Events	8
KGMS Meeting at MGRRE	30
MESTA Earth and Space Science STEM Career Day	400
Fall Science Update	14
Total:	7,358

### Past outreach events July 1, 2015 to June 30<sup>th</sup>, 2016

- i. July 9<sup>th</sup> – Kalamazoo Air Zoo – Campus visit
- ii. July 23<sup>rd</sup> – Branch Co Library events
- iii. August 6<sup>th</sup> – Presentation to the Big Rapids Rocks and Minerals Club
- iv. Sept. 18<sup>th</sup> – Rouge River Festival, Cranbrook Institute of Science
- v. Sept. 19<sup>th</sup> – Booth at WMU Department of Geosciences 50<sup>th</sup> anniversary event
- vi. Oct. 2<sup>nd</sup> – Kalamazoo Reformed Heritage Christian School – MGRRE Tour and Michigan Geologic History Module



- vii. Oct. 10<sup>th</sup> – MESTA Annual Conference
- viii. Oct. 13<sup>th</sup> Star Elementary, Plainwell – Bill Mitchell Borrowed Core Pumps
- ix. Oct. 17<sup>th</sup> – National Fossil Day Event at MSU Museum
- x. Oct. 20<sup>th</sup> – MESTA Evening of Science, U of M Museum of Natural History
- xi. Oct. 23<sup>rd</sup> – Central Michigan Lapidary and Mineral Society Annual Show
- xii. Oct. 28<sup>th</sup> – Kentwood Public Schools – MI Fossils.
- xiii. Oct. 30<sup>th</sup> – Old Redford Academy High School– Mi Geol. History Module
- xiv. Oct. 30<sup>th</sup> – MGRRE Tour, CMU Petroleum Geology Class
- xv. Nov. 6<sup>th</sup> – Greater Heights Academy – Michigan Geol. History Module
- xvi. Nov. 7<sup>th</sup> – MDSTA Annual Conference
- xvii. Nov. 12<sup>th</sup> –Marshall Upper Elementary School – Mi Geol. History Module.
- xviii. Nov. 13<sup>th</sup> – Marshall Upper Elementary School – Mi Geol. History Module
- xix. Nov. 18<sup>th</sup> – U of M Museum of Natural History
- xx. Nov. 19<sup>th</sup> – Handy Middle School – MI. Geol. History Module Nov. 20<sup>th</sup> – Handy Middle School – MI. Geol. History Module.
- xxi. Nov. 23<sup>rd</sup> – Hudsonville Christian School – Groundwater Module
- xxii. Nov. 24<sup>th</sup> – Hudsonville Christian School – Groundwater Module
- xxiii. Dec. 1<sup>st</sup> – Western Middle School visit – Mi Geol. History Module
- xxiv. Dec. 4<sup>th</sup> – Grosse Pointe North High School Mineral Mania Event– Economic Minerals.
- xxv. Dec. 7<sup>th</sup> – Stanwood Middle School – MI Geol. History Module
- xxvi. Dec. 9<sup>th</sup> - Kalamazoo Country Day School – MGRRE tour.
- xxvii. Dec. 10<sup>th</sup> – Ballard Elementary School, Niles MI. MI. Geologic History Module
- xxviii. Dec. 30<sup>th</sup> – Kalamazoo Air Zoo Joint Event
- xxix. Jan. 11<sup>th</sup> – Home School Group tour of MGRRE
- xxx. Jan. 16<sup>th</sup> – Career Cruising Day – MLK event on Campus
- xxxi. Jan. 22<sup>nd</sup> – U of M Museum event – MI Geologic History Module
- xxxii. Jan. 27<sup>th</sup> – Scheduled School Visit, Gull Lake Middle School. Michigan Geologic History Module
- xxxiii. Feb. 10<sup>th</sup> - Scheduled School Visit, Gull Lake Middle School. Michigan Geologic History Module
- xxxiv. Feb. 24<sup>th</sup> – Mattawan Middle School – Michigan Geologic History Module
- xxxv. Feb. 26<sup>th</sup> – Mattawan Middle School – Michigan Geologic History Module
- xxxvi. Feb. 27<sup>th</sup> – Michigan State University Sedimentology Class visit to MGRRE
- xxxvii. March 8<sup>th</sup> – Gull Lake Middle School
- xxxviii. March 11<sup>th</sup> – Gull Lake Middle School – Earthquake Module
- xxxix. March 9<sup>th</sup> – Washington Writers Academy
  - xl. March 16<sup>th</sup> – University of Michigan Museum Event
  - xli. April 26<sup>th</sup> – The Kazoo School – Hydrogeology Module
  - xl.ii. April 29<sup>th</sup>-May 1<sup>st</sup> – Kalamazoo Rock and Mineral Annual Show
  - xl.iii. April 30<sup>th</sup> – AAUW Tech Savvy Conference – booth at conference
  - xl. iv. May 7<sup>th</sup> – Kalamazoo Air Zoo make-up event

- xlv. May 18<sup>th</sup> – U of M Museum of Natural History – Scheduled partnered event
- xlvi. June 6<sup>th</sup> – Moorsbridge Elementary – Michigan Geologic History Module
- xlvii. June 30<sup>th</sup> – Kalamazoo Nature Center – MGRRE tour + Museum

### **Past outreach events July 1, 2016 and on**

- I. Aug. 1<sup>st</sup> – Kalamazoo Air Zoo
- II. Aug. 29<sup>th</sup> – Kalamazoo Air Zoo
- III. Sept. 16<sup>th</sup> – The Gagie School (MI. Geologic Resources Module)
- IV. Oct. 9<sup>th</sup> – MSU Museum Fossil Day
- V. Oct. 14<sup>th</sup> – MAEOE MGRRE Tour
- VI. Oct. 18<sup>th</sup> – Starr Elementary School (Bill Mitchell – borrowed Core Pumps)
- VII. Oct. 21<sup>st</sup> – Central Michigan Mineral Show School Day
- VIII. Nov. 1-2<sup>nd</sup> – MiCareerQuest Day
- IX. Nov. 2<sup>nd</sup> – KGMS Meeting at MGRRE
- X. Nov. 3<sup>rd</sup> – The Gagie School (Mineral identification)
- XI. Nov. 5<sup>th</sup> – MSU class tour at MGRRE
- XII. Nov. 11<sup>th</sup> – MESTA Career Day
- XIII. Nov. 11<sup>th</sup> – The Gagie School (Mineral and Rock identification)
- XIV. Nov. 16<sup>th</sup> – Fall Science Update Conference

### **Upcoming Events**

- XV. Dec. 22<sup>nd</sup> – Kalamazoo Air Zoo joint event
- XVI. Jan. 5<sup>th</sup> – Kalamazoo Air Zoo joint event
- XVII. April 20<sup>th</sup> – DEQ Earth Day Celebration