

Michigan Geological Survey Report 5 from the K-12 Outreach Director, Peter Voice [January 10, 2014]

New Items:

1. Heather sent notice that the Online MGRRE Education Portal proposal for the NSF DR K-12 grant was submitted Dec. 9 by Sarah Pratt.
2. Met with Mike Newman and Shada Biabani-Kanine from the Michigan Aggregate Association.
 - a. Discussed partnership
 - b. Sharing contact lists
 - c. We will promote their Aggregate Association Kits
3. Working on scheduling event(s) for Grand Haven Public School – their instructor would like to bring students to MGRRE.
4. Discussed Shale Gas/Fracking module with John Fowler – he gave us some good ideas for an analog model after seeing our prototype. Once the prototype has been tweaked a little more, we will put together an overview handout. John will potentially add it to www.fracky.org.
5. Wrote a letter of recommendation for Steve Barone.
6. Dec. 17. met with Laura Cross (Air Zoo Educator), Erin Lewis (Air Zoo Educator), Ann Marie Earl (Public Programs Manager) and Troy Thrash (President and CEO) of the Kalamazoo Air Zoo. Jenny Trout also attended the meeting.
 - a. Worked out tentative schedule for the Dec. 30th event that Jenny will assist them with. Two 45 minute sessions – one on Michigan Fossils, the other on Michigan Natural Resources, the rock cycle, etc.
 - b. Discussed linking websites
 - c. Additional 1-day activity days through the year – tentatively scheduling one for some time in March at MGRRE.
 - d. Possibility of developing an exhibit or module (or even both) focused on landform analysis, topographic maps, aerial photographs, etc.
 - e. Possibility of developing some content/activity with regard to their week-long summer camps. We potentially could do 1 day of events – morning at MGRRE and afternoon at Rood – Geology Museum, outdoor Campus activities, etc.
 - f. Extended the invitation to Laura and Erin to visit MGRRE at some point in January to show them the Education room and some of our hands-on activities.
7. I forwarded one of our teacher contacts to the MI Aggregate Association Outreach people as she was interested in receiving their module and a class room visit from an MI Aggregate Association Member.

8. I contacted Bill Mitchell and Sheri Crum(K.G.M.S.) to discuss ways that they could potentially work with the Air Zoo.
9. Dec. 26 through Dec. 30 Cranbrook Institute Dinosaur Festival
 - a. Set of booths tucked into the normal Geology-Paleontology section of the museum.
 - b. Age range – primarily K-6. The cast/mold exercise was quite popular.
 - c. Met with Sherri Chrysler from the Michigan Mineralogical Society (a museum volunteer who was stationed in our area)
 - i. Discussed possible M.G.S.-M.M.S. joint activities – including working with their October Annual Show (in a similar fashion as with the K.G.M.S. annual show).
 1. I later sent an email to her colleague Stan Wollams, who is the current president of the society as an introduction about our program and reaching out to see if there were opportunities for joint activities.
 - a. He sent me their Education Chair’s contact information and asked that I discuss possibilities with him.
 - ii. Discussed possible outreach events at the school she teaches at.
 - d. Total number of ticketed sales during the 5-day event: 3,330. The staff said that the totals were close to record-breaking!
 - i. Daily totals:
 1. Thursday Dec. 26: 373
 2. Friday Dec. 27: 713
 3. Saturday Dec. 28: 813
 4. Sunday Dec. 29: 506
 5. Monday Dec. 30: 925
10. Dec. 30, Jenny Trout did an outreach event with the Kalamazoo Air Zoo’s outreach program. She had 12 participants (8 children, a grandparent, and 3 Air Zoo staff [Education Coordinator and 2 interns])
11. Jan. 8, I reached out to Mike Narlock at the Cranbrook Institute for the following:
 - a. Feedback on the CoreKids Contribution to the Fossil Festival – see attached email.
 - b. A letter of support for funding purposes – they will gladly provide this.
12. Dexter Snyder from the Cranbrook Institute of Science’s Discovery Center asked for copies of some of the posters we developed for the Fossil Festival
 - a. I told him that I would need to check with the Director about that
 - b. I suggest that we have a student(s) develop original content that we can post as downloadable posters (or perhaps even sell paper copies)

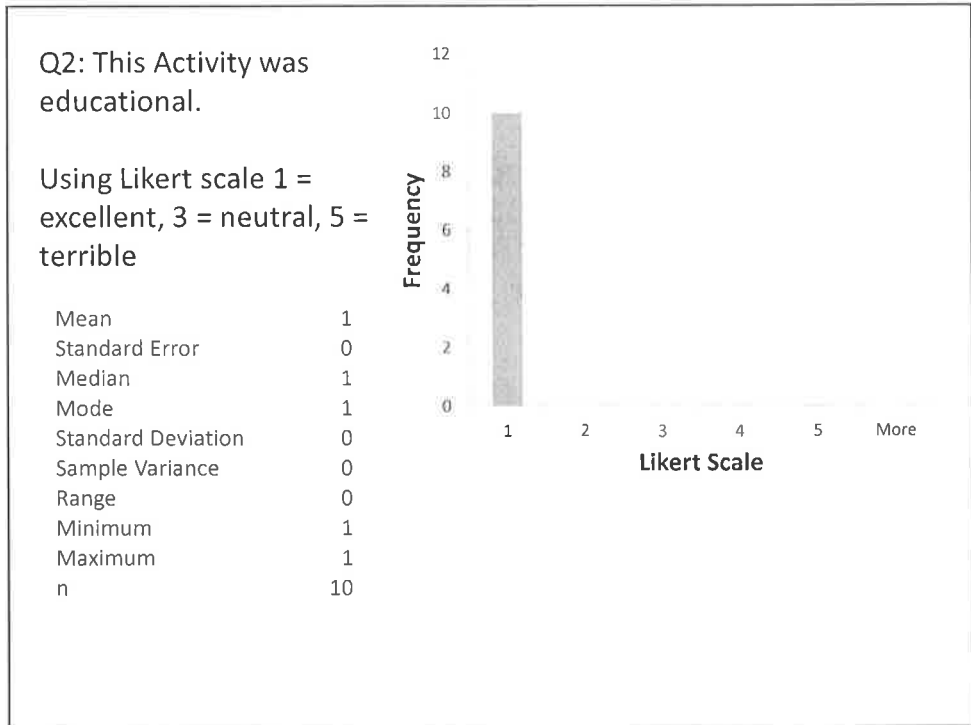
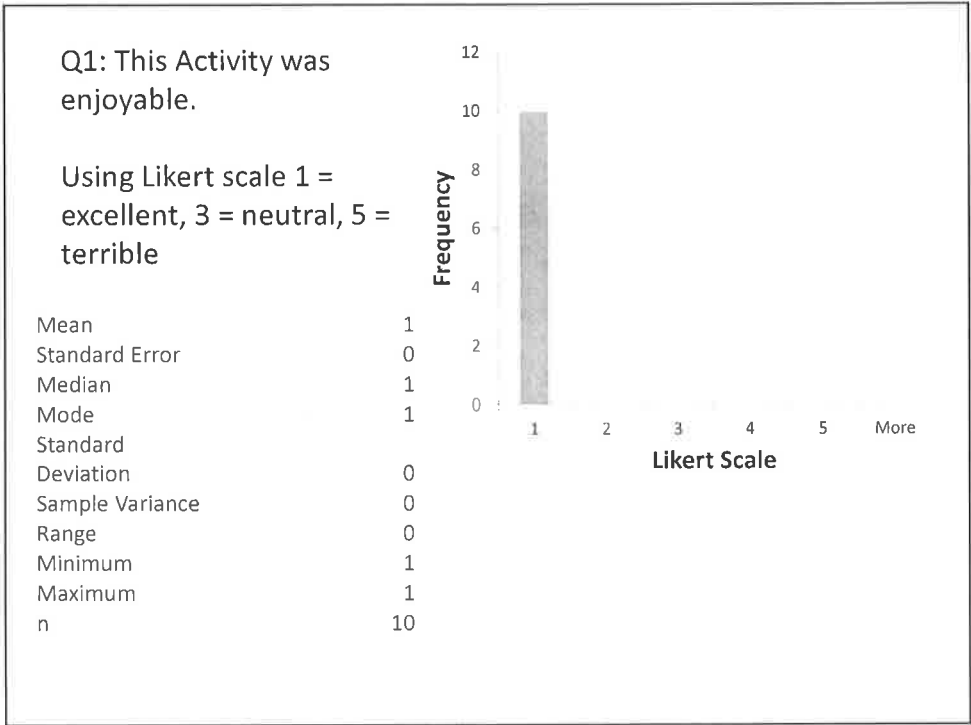
13. I set up a meeting for John Yellich, Mohamed Sultan, myself and Jennifer Callahan to discuss the WMU Foundation-DTE Energy Foundation relationship and discussion of a continuing funding proposal for CoreKids. Meeting is set for Jan. 14.
14. I developed a series of plots and descriptive statistics for the feedback forms that the teachers have submitted after our classroom visits.
 - a. I have sent them out to a small committee for feedback on the presentation, changes to the feedback form, etc.
15. Lisa Anderson Venner (Illinois Geological Survey Outreach) contacted me Jan. 9 to discuss the upcoming North-Central GSA Section Meeting.
 - a. She has encouraged me to submit an abstract to the session: Public Outreach Beyond the Classroom: Geological Surveys, Museums, and Parks.
 - b. Currently working on a draft – focused on our success at partnering with other entities to supplement their annual events.

Current Totals

Total K- 12 Student Interactions (As of July 2013)	1392
Total Adult Interactions (As of July 2013: Chaperones and teachers at events)	50
WMU Hydrogeology Field Trip; CMU Petroleum Geology Class (College Students); Saudi Arabia Geological Survey Visit; Geology Club	69
Total Teacher Interactions (As of July 2013: MESTA, Other Contacts, Workshop)	120
K.G.M.S. Seminar Series, etc.	27
Cranbrook Institute Dinosaur Festival (all ages)	3330
Kalamazoo Air Zoo Events	12
<u>Total:</u>	<u>5000</u>

Projected Totals of Upcoming Events

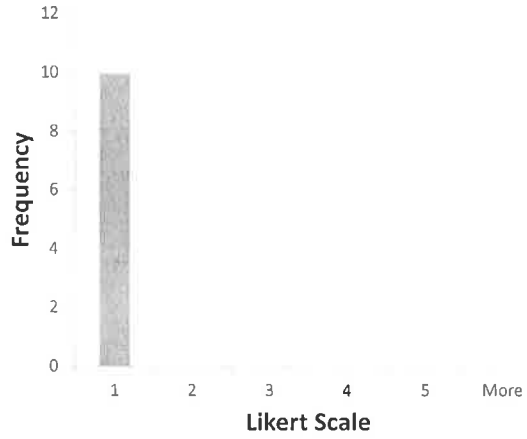
Scheduled School Visits:	846
WMU STEMulating Careers Day Event:	~100
DEQ Earth Day Festival:	~3,300
K.G.M.S. Annual Show:	~1,500
<u>Total Projected:</u>	<u>5,754</u>
 <u>Total Projected + Actual</u>	 <u>10,746</u>



Q3: This Activity met expectations.

Using Likert scale 1 = excellent, 3 = neutral, 5 = terrible

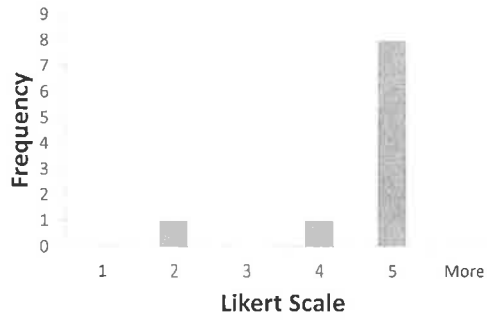
Mean	1
Standard Error	0
Median	1
Mode	1
Standard Deviation	0
Sample Variance	0
Range	0
Minimum	1
Maximum	1
n	10



Q4: This Activity was too difficult for the students.

Using Likert scale 1 = excellent, 3 = neutral, 5 = terrible

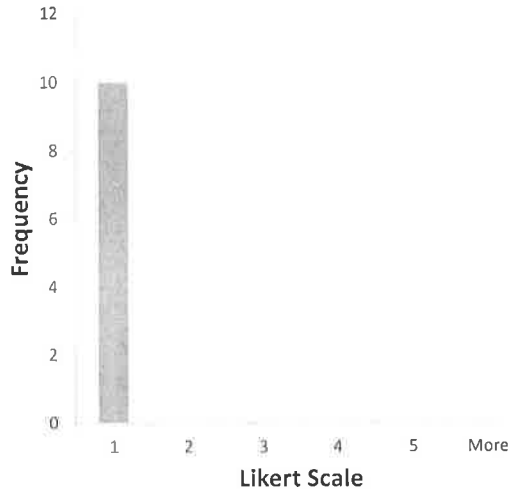
Mean	4.6
Standard Error	0.31
Median	5
Mode	5
Standard Deviation	0.97
Sample Variance	0.93
Kurtosis	7.19
Skewness	-2.66
Range	3
Minimum	2
Maximum	5
n	10



Q5: This Activity had clear instructions.

Using Likert scale 1 = excellent, 3 = neutral, 5 = terrible

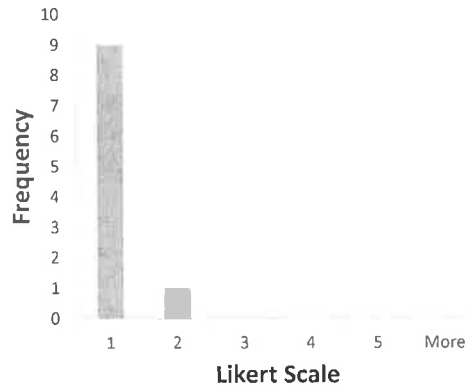
Mean	1
Standard Error	0
Median	1
Mode	1
Standard Deviation	0
Sample Variance	0
Range	0
Minimum	1
Maximum	1
n	10



Q6: This Activity had a clear purpose.

Using Likert scale 1 = excellent, 3 = neutral, 5 = terrible

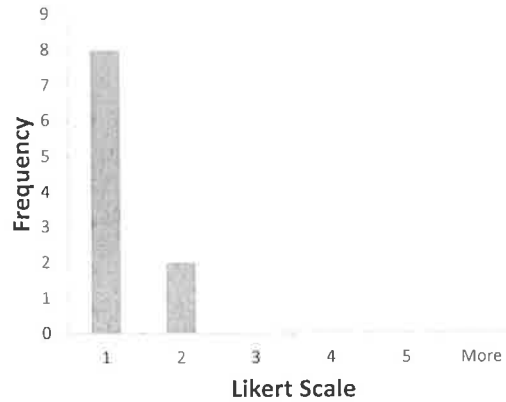
Mean	1.1
Standard Error	0.1
Median	1
Mode	1
Standard Deviation	0.32
Sample Variance	0.10
Kurtosis	10.00
Skewness	3.16
Range	1
Minimum	1
Maximum	2
n	10



Q7: This Module improved student understanding.

Using Likert scale 1 = excellent, 3 = neutral, 5 = terrible

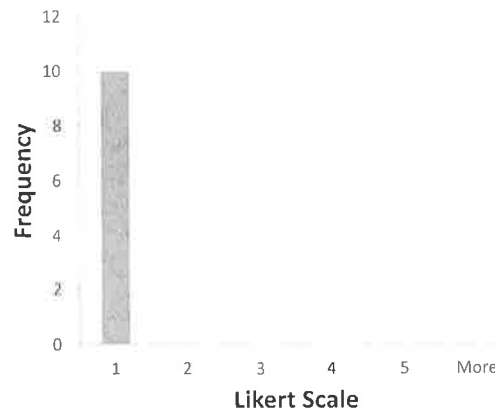
Mean	1.2
Standard Error	0.13
Median	1
Mode	1
Standard Deviation	0.42
Sample Variance	0.18
Kurtosis	1.41
Skewness	1.78
Range	1
Minimum	1
Maximum	2
n	10



Q8: The Presenter of this Module was knowledgeable.

Using Likert scale 1 = excellent, 3 = neutral, 5 = terrible

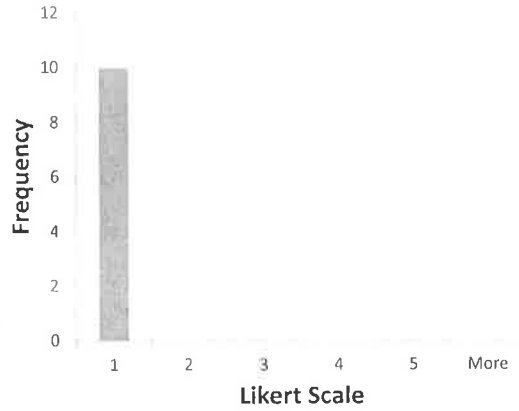
Mean	1
Standard Error	0
Median	1
Mode	1
Standard Deviation	0
Sample Variance	0
Range	0
Minimum	1
Maximum	1
n	10



Q9: The Presenter of this Module was organized.

Using Likert scale 1 = excellent, 3 = neutral, 5 = terrible

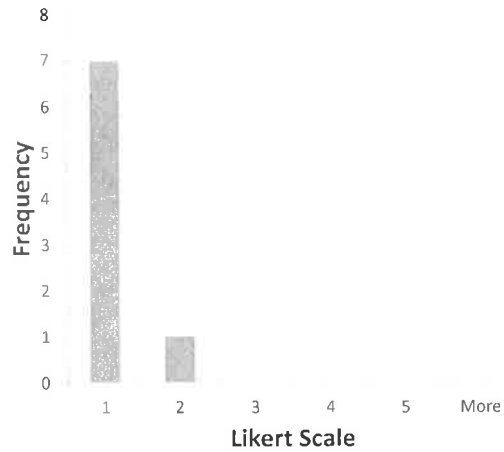
Mean	1
Standard Error	0
Median	1
Mode	1
Standard Deviation	0
Sample Variance	0
Range	0
Minimum	1
Maximum	1
n	10



Q10: Overall Module Score*

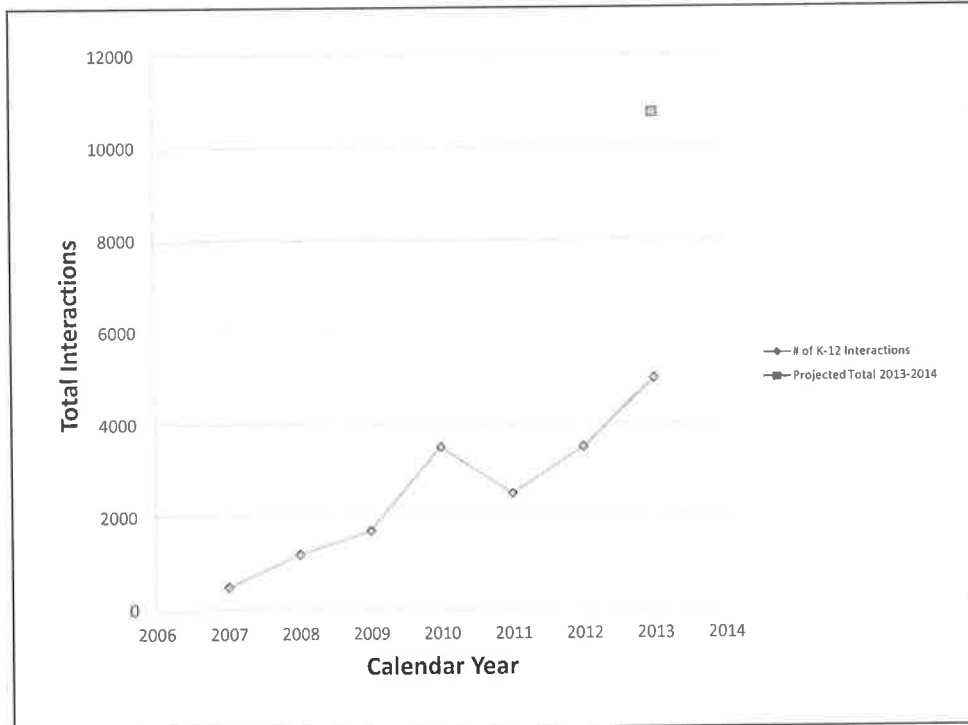
Using Likert scale 1 = excellent, 3 = neutral, 5 = terrible

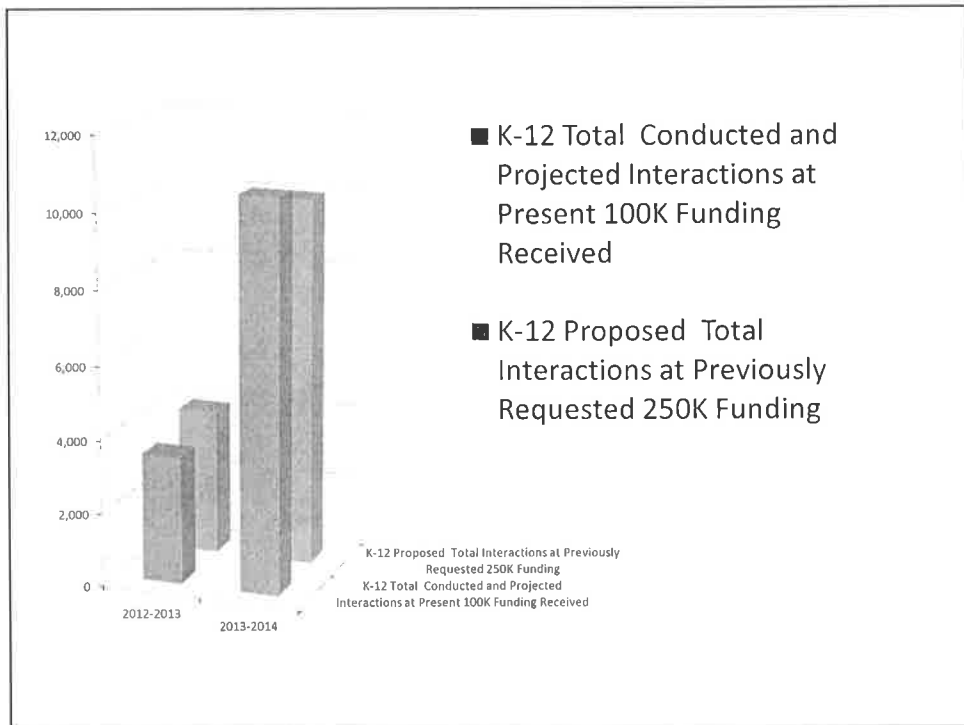
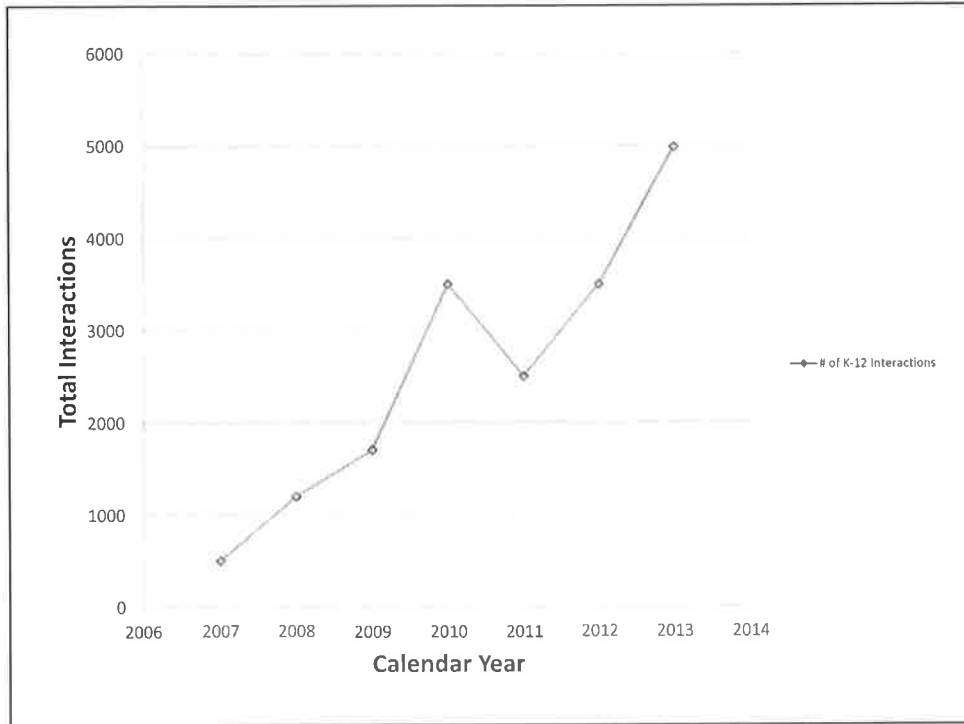
Mean	1.13
Standard Error	0.13
Median	1
Mode	1
Standard Deviation	0.35
Sample Variance	0.13
Kurtosis	8.00
Skewness	2.83
Range	1
Minimum	1
Maximum	2
n	8



*Score determined by Teacher on Evaluation Form

Year	Total Interactions
2007	500
2008	1200
2009	1700
2010	3500
2011	2500
2012	3500
2013	4988
Total	17888





WMU Webmail Plus

p8voice@wmich.edu

RE: CoreKids and Cranbrook**From :** Michael Narlock <MNarlock@cranbrook.edu>

Wed, Jan 08, 2014 11:28 AM

Subject RE: CoreKids and Cranbrook

:

To : 'Peter J Voice' <peter.voice@wmich.edu>

Peter,

I will get a letter of support out to you soon. We really enjoyed having you here. For the record, our attendance for this year's event far surpassed the event last year. Thanks so much for being a big part of our efforts.

I look forward to working with you in the future.

By the way, should the letter be an email or would you prefer it be physical sent to somewhere/someone?

-----Original Message-----

From: Peter J Voice [mailto:peter.voice@wmich.edu]

Sent: Wednesday, January 08, 2014 11:21 AM

To: Michael Narlock

Subject: Re: CoreKids and Cranbrook

Good day Mike,

Now that I am caught up again and back on campus after our wintry weather the past couple of days, I thought it would be a good idea to get some feedback on our program from you and the other organizers of the Fossil Festival. We quite enjoyed the five days visit and are more than willing to continue collaborating in some form. We already have some ideas on how to improve our Michigan Fossils Module from working with all of the children and parents.

We are currently working on a continuing funding proposal (hopefully through the DTE Energy Foundation) for the CoreKids program and would like a letter of support that we could include with the proposal.

thank you
Peter Voice

----- Michael Narlock <MNarlock@cranbrook.edu> wrote:

> 11am

>

> Sent from my iPhone

>

> > On Dec 18, 2013, at 2:49 PM, "Peter J Voice" <peter.voice@wmich.edu> wrote:

> >

> > Hi Mike,

> >

> > One last question, when on the 26th can we get in to set up?

> >

> > PJV

> >

> >

> > ----- Michael Narlock <MNarlock@cranbrook.edu> wrote:

> >> That is the plan!

> >>

> >> -----Original Message-----

Fossil Zoom!

Use your smartphone or iPod camera to take unique pictures of fossil amber specimens utilizing our magnifying stands. These unbelievably and beautifully preserved specimens make for interesting and unique photos of ancient life.

Paleo Critter Copies

Scientists make replicas of their fossil discoveries and share them with other researchers. Many fossils on display in museums are actually casts. Work like a scientist by using air-dry clay to make an exact copy of one of the Institute's unique fossil specimens to take home with you.

Dinosaur "Foot Rub"

Paleontologists are sometimes unable to remove fossil footprints from the bedrock in which they are found. There are many sites like this in the U.S. Instead of breaking up and destroying the sites scientists instead make casts or full size tracings and rubbings of the prints for study in the lab. Make a fossil footprint rubbing to take home as a token of your visit to Cranbrook.

"DINO-Cadabra"

Spend some time with our very own staff "magician" to experience the magic of fossils and cool illusions.

Observatory Tours

View the sun safely in either Hydrogen-alpha (red) or once-ionized Calcium atoms (blue)!

Dinosaur Face Painting

Get your face painted like a dinosaur or other animal and roam the exhibits of the Institute!

Hatching the Past

Use our secret egg-making formula to create and take home a dinosaur egg.

Scavenger Hunt

Complete an Institute-specific scavenger hunt to reveal a special holiday message.

Discovery Center (11am - 4pm)

Cranbrook's Discovery Center offers an exciting learning experience to feed the curiosity of intergenerational learners.

CoreKids

Explore four unique activities: *Mammoths vs. Mastodons* which includes real bones and replicas of their teeth; *Michigan Geology* offering rock samples and a set of Cores for permeability tests; *Michigan Fossils* featuring fossils laid out across a map of Michigan illustrating where one may find fossils in the state; and *Fossil Preservation*, an experience that illustrates and simulates fossil preservation.

Planetarium Programs (tickets available for purchase at Front Desk)

10:30am	One World, One Sky: Big Bird's Adventure
11:30am	Dinosaurs at Dusk
12:30pm	Let It Snow
1:30pm	Michigan Sky Tonight featuring Back to the Moon
2:30pm	Mystery of the Christmas Star
3:30pm	Michigan Sky Tonight (Ages 6 & Above Only)

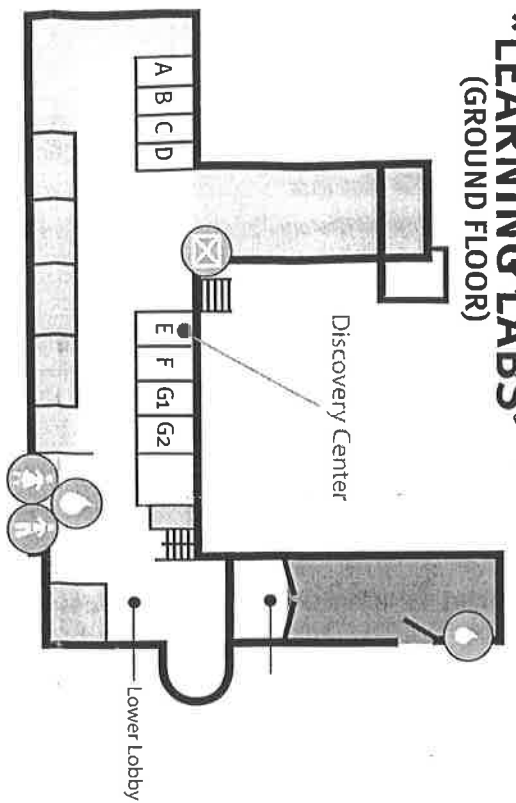
Live Bat Programs (tickets available for purchase at Front Desk)

12:30 and 2:30pm

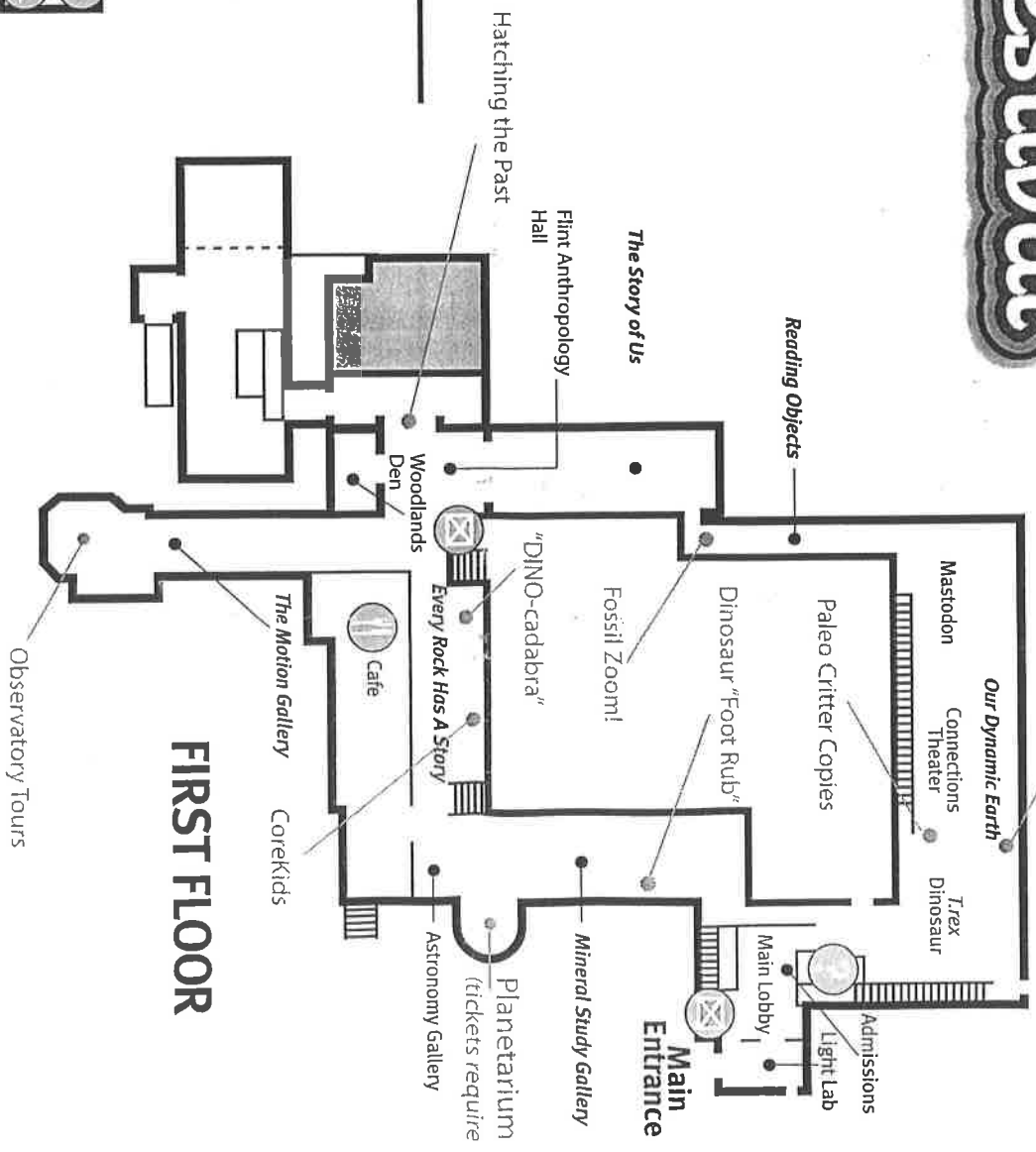
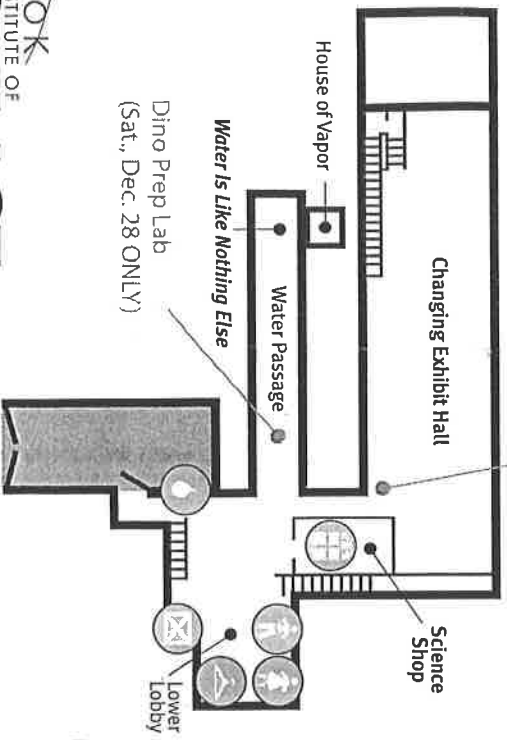
Th 26 - 373
 Fr 27 213 to 5:00
 Sat 28 813 to 5:00
 Sun 29 506
 Mon 30 925
 3330

Fossil Festival

*LEARNING LABS (GROUND FLOOR)



GROUND FLOOR



FIRST FLOOR

- ADMISSIONS INFORMATION/CHECK IN
- COAT ROOM
- ELEVATOR

- FOOD SERVICE
- SCIENCE SHOP
- WATER FOUNTAIN

- MEN'S ROOM
- WOMEN'S ROOM
- AUDITORIUM
- NON-PUBLIC SPACE
- ACCESS ONLY

