

Dear Indiana Teacher:

The 2005 *Rocks and Minerals in Modern Society* Teachers' Workshop is scheduled for June 21st – 23rd at the Conner Prairie Living History Museum where it is always 1836. The Indiana Mineral Aggregates Association and the Indiana Geological Survey are sponsoring the three-day event. The purpose of the workshop is to provide Indiana earth science teachers with creative and fun activities to enhance classroom lesson plans.

Workshop materials are designed to be used by teachers K-6th grade, but they can be adapted for use in middle school and high school classrooms. In addition to these hands-on activities, guest speakers will cover various topics related to the study of earth science. Numerous handouts and other educational materials will be provided for each teacher who attends.

Registration begins at noon on Tuesday, June 21st. The first session begins promptly at 12:30 p.m. and will end at 5:00 p.m. The evening is free to explore Indianapolis. On Wednesday evening you will be our guest at an old fashioned, down home Hoosier barbecue complete with entertainment. Brandeis Machinery & Supply will be our host at their facility on the northwest side of Indianapolis. This event will provide an opportunity for the instructors, aggregate industry personnel and teachers to get together, relax and share information.

The Wednesday and Thursday class schedule will include additional hands-on activities, lectures, and field trips. The group will board buses for the Wednesday field trip to tour Martin Marietta's River Avenue Complex, the Martin Marietta Underground Limestone Mine and the Open Pit Mine at its 96th Street location. In addition to the tours of their facilities, Martin Marietta Aggregates will also provide a delicious luncheon. Thursday's hands-on activities and field trip will be at the imi McCordsville Plant. **TRANSPORTATION WILL BE PROVIDED FOR EACH SCHEDULED ACTIVITY.**

DRESS IS CASUAL FOR ALL FUNCTIONS AND ACTIVITIES! Some of the hands-on activities are messy so jeans, shorts, T-shirts, and tennis shoes or your "diggers" are recommended. Field trips feature tours of a sand and gravel operation, dredge operation, and an underground mine, so casual clothes are also recommended.

The registration fee for the 2005 Teachers' Workshop is \$55.00. Optional credits for the workshop are available. If you are interested in the graduate credit hour from the Indiana University School of Education, the cost is \$212.70(one credit hour). Forms will be provided at the workshop. If you would like to obtain the nine CRU's (no charge), that can be arranged at the workshops.

If you need overnight accommodations, we will have a block of rooms at the Holiday Inn Express, Fishers, Indiana. The room charge will be \$81.75 for single/double occupancy and a continental breakfast is included in the price of the room. To receive the group rate, please mention that you are with the **TEACHERS' WORKSHOP GROUP** (Group Code TWK).

The Conner Prairie staff is offering you the opportunity to tour the museum facility and grounds prior to the workshop at no additional charge. The one and one-half hour tour will begin at 10:00 a.m. EST on June 21st. If you plan to attend the pre-workshop tour, please check the appropriate box on the registration form so that Conner Prairie will know how many docents will be needed. Lunch will be available in the Conner Prairie Restaurant or bring your own sack lunch.

We are excited about meeting Indiana teachers and supplying you with materials to make classroom earth science studies more enjoyable for you and your students. If you need additional information, call Jane Graham (317-580-9100) at the Indiana Mineral Aggregates Association office. Please let us know if you require auxiliary aids and services because of a disability or have special dietary needs.

Teachers' Workshop Staff

Teachers' Workshop



Need help with the
new Indiana Science
Standards? Attend
our workshop!!!

Rocks and Minerals in Modern Society

June 21-23, 2005

**CONNER PRAIRIE LIVING HISTORY MUSEUM
Fishers, Indiana**

*Sponsored by: The Indiana Mineral Aggregates Association
The Indiana Geological Survey*

For more information – visit our web site: www.indmaa.org

Indiana Mineral Aggregates Association
11711 N. College Avenue, Suite 180
Carmel, IN 46032-5601
317.580.9100

2005 “Rocks & Minerals In Modern Society” Teachers’ Workshop (Tentative Agenda)

TUESDAY, JUNE 21st

Noon to 12:30 p.m.	Registration	
12:30 p.m.	Welcoming Remarks	Mike Lovell, P.I.E. Committee Chairman
	Overview of Program	Robert Jones, IMAA Executive Director
	“Hands-on/Minds-On” Session 1/2	Workshop Staff
	Overview of Indiana Geology	Jeff Kirby, Indiana Geological Survey
	“Hands-on/Minds-On” Session ½	Workshop Staff
5:00 p.m.	Free Time	

WEDNESDAY, JUNE 22nd

8:00 a.m.	Orientation	
	“Hands-on/Minds-on” Session 3/4	Workshop Staff
	Rocks & Minerals of Indiana	Dr. Nelson R. Shaffer, Research Scientist / Geologist, Indiana Geological Survey
	“Hands-on/Minds-on” Session 3/4	
	Lunch – Conner Prairie – Sponsored by Martin Marietta Aggregates	
	Board Buses for Field Trip #1	
	Tour of Martin Marietta River Avenue Complex	
	Tour of Martin Marietta 96 th Street Underground Mine	
4:30 p.m.	Return to Conner Prairie/Holiday Inn Express	
6:00 p.m.	Board Buses for Teacher / Industry BBQ	
6:30 – 9:00 p.m.	Teacher / Industry BBQ	

THURSDAY, JUNE 23rd

8:00 a.m.	Board Buses for Field Trip #2	
	Sieving/Sorting Demonstration	Al Witty, Martin Marietta Aggregates Kevin Holloway, imi
	Blast	
	Tour IMI McCordsville Plant	
	“Hands-on/Minds-on” Session 5/6	Workshop Staff
Noon	Box Lunch and Evaluation Period	
12:45 p.m.	Board Buses for Holiday Inn Express	
1:30 p.m.	Departure	

HANDS-ON/MINDS-ON SESSION 1

Rock Detective

Jon Havens, Tom Pickett, Karen Mappes, Robert Jones, Nancy Jones, Carlyn Greene, Scott Gaede

- “Is It A Rock or A Mineral?”
- Construction of Minerals Box
- Mineral Detective
- Uses of Mineral Products

HANDS-ON/MINDS-ON SESSION 2

Everybody Needs A Rock

Mike Lovell, CAC Diehr, Kim Diehr, Susan Daniel, Scott Woodard, Sonya Cowles

- Rock Video
- Rock Selection
- Rock Identification
- Birdseed Mining
- Cereal Mining

HANDS-ON/MINDS-ON SESSION 3

The Mining Process From Exploration To Operation

Susan Daniel, Jeff Fee, Al Witty, Scott Gaede, Jon Havens, Sally Stock, Carlyn Greene, Holly Ward

- Cupcake Core Drilling
- Mining In A Nutshell

HANDS-ON/MINDS-ON SESSION 4

The Mining Process From Exploration To Reclamation

Mike Lovell, Tom Pickett, Karen Mappes, Robert Jones, Nancy Jones, Sonya Cowles

- Cookie Mining
- Mineral Depletion

HANDS-ON/MINDS-ON SESSION 5

Concrete Basics

Jon Havens, Susan Daniel, CAC Diehr, Karen Mappes, Nancy Jones, Sonya Cowles

HANDS-ON/MINDS-ON SESSION 6

Fossils

Jon Havens, Tom Pickett, Carlyn Greene, Scott Gaede

TO SEE PICTURES OF SOME OF THE WORKSHOP ACTIVITIES, VISIT THE SCHOOL ZONE TEACHERS’ SECTION ON OUR WEB SITE. Our web address is www.indmaa.org.

Rocks & Minerals in Modern Society

**Workshop for
Teachers (K-12)**

**Conner Prairie Museum
Fishers, Indiana**

June 21-23, 2005

Conference Description

- ◆ The workshop will focus on the identification, economic value, and the uses of a variety of earth materials in modern society.
- ◆ Materials specially created for K-12 science education programs.
- ◆ Participants may earn one graduate credit hour from Indiana University School of Education and/or nine CRUs.
- ◆ *Registration will be limited to 60 participants.*
- ◆ Hands on sessions that use the analogs of mining bird seed and making plug cores of cupcakes will offer a novel approach to mining procedures and economics.
- ◆ Tour an active aggregate mining operation. On-site instruction will be provided concerning extraction technology, quality control, and how industry addresses the environmental implication of aggregate mining.

Workshop Fees

Registration fee: \$ 55.00

OPTIONAL:

IU Credit: 1 graduate credit hour
Cost: \$212.70
CRU's No charge

Sponsored by:

Indiana Mineral Aggregates Association and the Indiana Geological Survey, Indiana University

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Mail to: Indiana Mineral Aggregates Association
11711 N. College Ave., Suite 180
Carmel, IN 46032
Phone: 317-580-9100 Fax: 317-580-9183

I am enclosing a check for the registration fees payable to:

The Indiana Mineral Aggregates Association

- I want to receive CRU's.
 I want to receive IU credits.

I will attend Conner Prairie Pre-Workshop Tour

If you need any auxiliary aids or services with regard to a disability, or have special dietary needs, please call Jane at 317-580-9100.

Please Print:

Name: _____

School or Affiliation: _____

City: _____

Grade level: _____

Home Address: _____

City: _____

State: _____ Zip: _____

Phone: _____

**Holiday Inn Express Room Rates per night:
Up to 4 occupants: \$81.75 (including tax)
Room block deadline: June 14, 2005**

I-69 & 96th Street, Fishers, Indiana.

Phone: 317-578-2000

Be sure to mention that you are with the IMAA TEACHERS WORKSHOP GROUP to receive the workshop room rate. (Group Code TWK)