



GEMS

NEWSLETTER FOR THE KALAMAZOO GEOLOGICAL & MINERAL SOCIETY DECEMBER 2013

Happy Holidays KGMS,

'Tis the season to give thanks for all we have and provide help to those less fortunate.

Please plan on joining the club at the annual Christmas Party. This is one of most well attended meetings each year. It is a great way to just sit back and socialize with our fellow club members. Don't miss the social event of the year! (Details included later in the GEMS.) Please note the early start time. Let me know if you have any questions.

Wishing everyone a joyous holiday!



Rock On!
Bill Mitchell
KGMS President

DECEMBER 2013 CLUB MEETING

KGMS Holiday Gathering

December 3, 2013

6:30 pm

(Please Note Early Start Time)



The evening will start with a pot luck feast. The Club will provide the main course. Things to bring:

- Bring a delicious dish to pass.
- Your own place setting.
- Something to drink.

-A Fun Attitude. 😊 NO 😞

GIFT EXCHANGE: Participation is optional. Bring a wrapped gift to exchange with one another member has brought. All items will be placed on a table and after dinner participants can pick out a gift. You must bring a gift in order to receive one. Please remember to make it related to our hobby.

After dinner a group activity will held with prizes.
Come one, come all. A great time for everyone!

CHRISTMAS PARTY AUCTION: LAPIDARY EQUIPMENT

1. 16" Drop saw, appears almost brand new. Starting Price: \$350.
2. Star brand 6" diamond trim saw with 2 wheels for grinding and pad on the end for polishing. Starting Price \$250.00

These Items were donated to the club. They will be auctioned at the Xmas party.
The highest bidder will be able to take home.

PROJECT TIPS:

While reloading files onto my computer I saw this article from the Indian Mounds Nov 2012 Arrowhead News Newsletter. Since winter is upon us, I know many of you will be inside doing projects so I thought this might be of interest.

TEMPLATES

From BenchTips by Brad Smith

Whenever I have to make more than 2--3 exact copies of anything, I think of making a template. A template lets me easily draw the shape of an item. Art stores sell templates for common shapes like circles, ovals, hearts, etc, but if you need other shapes, it's easy to make your own.

Simply cut the shape out of sheet plastic, copper or brass. The brass template let's me quickly trace the design onto silver sheet, and the nickel template makes it easy to drill the pin inlay pattern into the ironwood.

After finding a poor selection of stock templates for ovals at my local art store, I was pleased with the wide selection on Cool Tools at <http://www.cooltools.us/>

If you order, be sure to look for the 10% off code each month on their Home page.

Kingsley North also has some nice templates at <http://www.kingsleynorth.com/>

Bench Tips by Brad Smith are at groups.yahoo.com/group/BenchTips/ or facebook.com/BenchTips

UPCOMING EVENTS IN 2014

MARCH 14th "ROCK YOUR WORLD"

Jackson County Fairgrounds, American One Event Center, 200 West Ganson, Jackson, MI 49201

Contact Sally Hoskin - Show Chair MGMS @ 517-522-3396, website: www.mgmsrockclub.com also info@mgmsrockclub.com



Octahedral
Fluorite

2014 MINERAL STUDY GROUP

In case you missed it, there was a Mineral Study Group meeting on Nov 16th at the Michigan Geological Repository. Keith Agdanowski has been working to revive and re-vision the KGMS Mineral Study Group (MSG). KGMS is planning a general meeting at MGREE (possibly Feb or June) for a tour of Repositories core samples. The goal is for the MSG meeting to complement the program of the general meeting at MGRRE and not be an exact duplication.

Who should attend: The program at MGREE is targeted to families, children are welcomed. Non-KGMS members may also attend.

A little info on MGRRE: The 27,000 square foot facility houses the most comprehensive archives of geological samples and data in the State of Michigan, including approximately 500,000 linear feet of rock cores obtained from oil and gas wells, mineral wells, environmental research wells, rotosonic cores of glacial sediments and samples from Lake Michigan bluff erosion studies and glacial research programs.

Dr. Voice has offered to help get a professor to present on a topic/theme during the Mineral Study Group, once every three months.

GIANT COAL TURTLE

By: Debra Black Staff Reporter, Published on Thu May 24 2012

Elizabethe gave me a newspaper article on Ancient Coal Turtles and asked me to put it into the GEMS. At the time I was unable to scan it, but I did research it and found it online. So here ya go Elizabethe!

Picture a turtle the size of a Smart car, with a shell large enough to double as a kiddie pool. Paleontologists from North Carolina State University have found just such a specimen - the fossilized remains of a 60-million-year-old South American giant that lived in what is now Colombia.

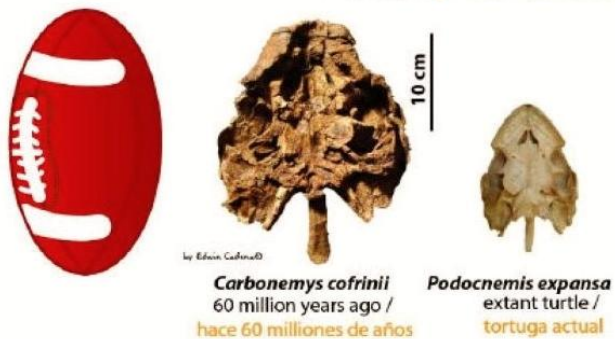
The discovery came after Cadena and others had found a number of smaller turtle specimens at the site.

Work on the site had begun a year earlier. The paleontologists were there originally looking for any evidence of animal bone preservation. But when Cadena found the skull of the turtle, he was genuinely surprised. He took a week to dig it out from the clay surrounding it, using a screwdriver. He soon realized he had something special — the largest side-necked turtle anyone had found in the area for this time period. And its existence provided paleontologists with the first evidence of “giantism” in fresh water turtles.



Edwin Cadena, NC State

Skull / Cráneo



The coal mine area had once been a freshwater lake with a climate similar to that of the Amazon River Delta or the area around the Orinoco River, Cadena explained. It was populated by not only giant turtles, but also giant snakes and crocodiles. The remains of the giant turtle — the skull is 24 centimeters and the shell measures 172 centimeters — is the same height as Cadena. Prior to Cadena's discovery, the oldest fresh water turtle fossil had been found in Venezuela and was believed to be 7 million years old.

Cadena believes his Colombian turtle — part of a group of turtles known as pelomedusoides — may be an ancestor of the Venezuelan turtle. When he first discovered the *Carbonemys*

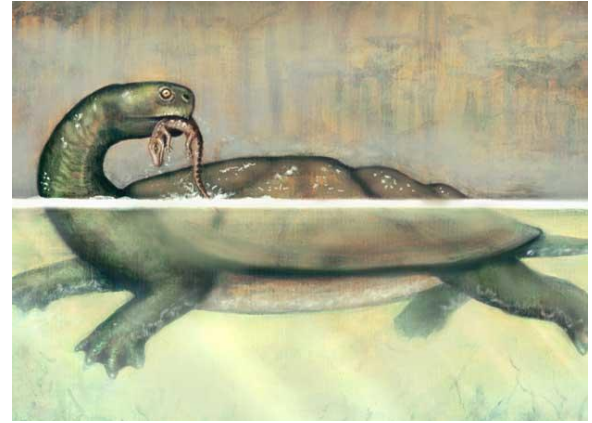
cofrinii turtle, Cadena was shocked. He was perplexed by the sheer size of the specimen and wondered how it had grown so large. “This is the first time in fossil records that we have an idea of what kind of animals lived after the extinction of dinosaurs,” he said.

Still, he was puzzled by the phenomenon of “giantism” in the specimen. How did the turtle get so big? Why were these giant animals in the area? Eventually Cadena concluded with the extinction of dinosaurs, reptiles didn't have to worry about predators wiping them out. Nor did they have to worry about a scarcity of food since there was an abundance of prey thanks to the death of the dinosaurs. Combine this with a very warm climate — experts estimate the area was 4 to 6 degrees Celsius warmer than today — and you had a perfect recipe for rapid and larger than normal growth, Cadena said.

Based on fossil evidence the *Carbonemys cofrinii* turtle also had a powerful jaw that would have allowed it to eat small crocodiles and other small turtles. And that would have given it the added protein it needed to grow very large. "It makes sense to get so big you need sources of food that aren't just vegetarian," he explained.

The discovery of the giant turtle remains in Colombia also offers some insight on the potential effect of global warming on reptiles today, Cadena said. Many experts have said that global warming may lead to the extinction of certain reptiles, he said. But Cadena's find may challenge this. "This discovery shows the reptiles are able to adapt very fast," he said. They seem to have mechanisms that allow them to survive global warming, he suggests. Cadena points out that there were a number of incidents of global warming and cooling in the period between when the *Carbonemys cofrinii* roamed the earth and when its Venezuelan descendant reigned supreme.

"But these guys didn't change that much," he said, adding that perhaps reptiles are much more adept at dealing with climate change than previously thought.



Reconstruction of *Carbonemys* preying upon a small crocodylomorph. (Credit: Artwork by Liz Bradford)

Edwin Cadena, NC State: Ancient Giant Coal Turtle Fossil Revealed

Story Source: The story is based on materials provided by North Carolina State University.

Journal Reference: Edwin Cadena, Dan Ksepka, Carlos Jaramillo, Jonathan Bloch. New pelomedusoid turtles from the late Palaeocene Cerrejón Formation of Colombia and their implications for phylogeny and body size evolution. *Journal of Systematic Palaeontology*, 2012 (in press)

Science Daily: Retrieved Nov 26, 2013, from <http://www.sciencedaily.com/releases/2012/05/120517131650.htm>

TV SHOWS ABOUT PROSPECTING & GEM HUNTING:

Both shows are excellent and really give you a look into what it takes to do both jobs for a living! Be sure to tune in! You will learn something about minerals every episode. Catch old episodes of the shows; see more photos & bios at the links by their photos.



GEM HUNT: airs on The Travel Channel (196 on DISH Satellite) on Tuesdays at 10 p.m.

PHOTO: Gem dealer Ron LeBlanc, jewelry expert Diane Robinson & Bernie Gaboury Geologist, Master Lapidary, Gemstone Exploration Specialist.

http://www.travelchannel.com/TV_Shows/Gem_Hunt/Gem_Hunt

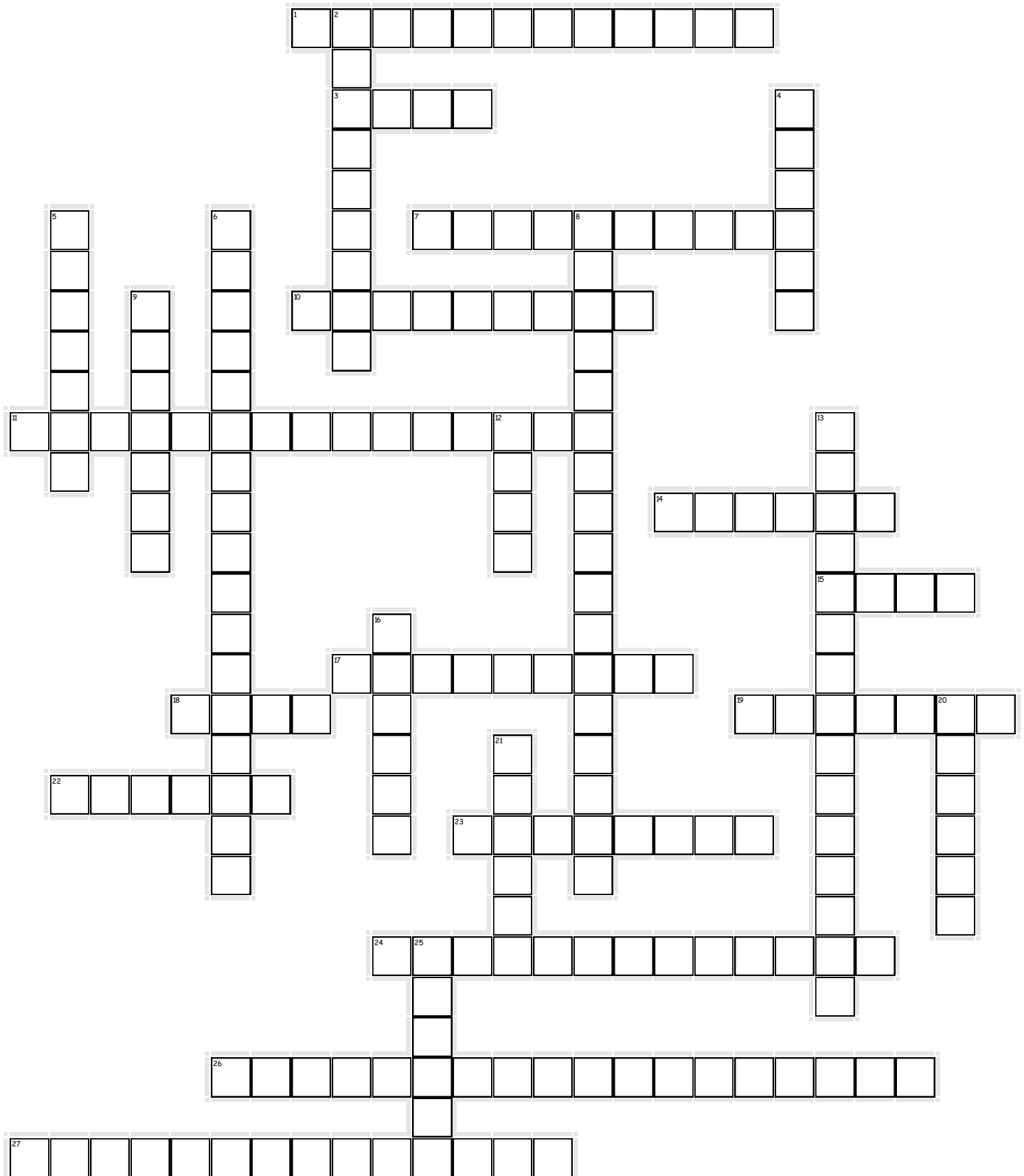
PROSPECTORS: Aairs on TWC on Sundays at 9 p.m.
(The Weather Channel 214 on DISH Satellite)

PHOTO: Steve Brancato, Amanda Adkins, Dwayne Hall, Tim Dorris, Krystal Velasco, Joe Dorris & Brian Busse
<http://www.weather.com/tv/tvshows/prospectors/main>



MINERALS ONE CROSSWORD

WITH OUR 2014 SHOW ABOUT MINERALS I'M GOING TO DO A MINERAL CROSSWORD PUZZLE IN EACH GEMS PRIOR TO THE SHOW. THE ANSWERS WILL BE ON PAGE 8. PLEASE GIVE ME FEEDBACK ABOUT THE PUZZLE. I HOPE IT WILL HELP US LEARN MORE ABOUT MINERALS!



ACROSS

1. Sedimentary rock made of fragments of pre-existing rocks
3. Tabular or sheet like body of mineral matter cutting across pre-existing rock, like granite
7. Igneous rock rich in spectacular minerals.
10. Tool used for collecting
11. Sedimentary formed of many very thin layers
14. Another tool used for collecting
15. Group of soft silicate minerals easily split into thin shiny sheets
17. Mineral found in igneous / plutonic rock
18. Vertical, cylindrical mass of igneous rock
19. Mass of bedrock exposed at the surface of the earth
22. Any material that surrounds larger crystals or particles
23. Tendency of some minerals to break on one or more regular smooth surface
24. Consists of larger amounts of potassium & sodium-bearing minerals
26. Mineral contents of a rock used to classify & name a rock
27. Igneous rock that solidifies on the surface of the earth

DOWN

2. Body of rock formed by single outpouring of lava
4. Another tool used for collecting
5. Has shape of irregular lumps of rock or mineral
6. Ability of a mineral to remain the same from range of pressure & temperature
8. Mineral that occurs in minute quantities & doesn't affect the way a rock is named or classified
9. Small cavity in a volcanic rock
12. Any soft sediment or deposit that is plastic when wet & contains very fine-grained mica like materials
13. Sedimentary rock containing both rock & mineral fragments
16. Contains calcium
20. Group of minerals where oxygen combined with metal is a major factor
21. An abundant mineral that occurs widely & in many forms
25. Surface appearance which reflects light

ROCK n GEM LINKS

Gemstones Information and Gem Pictures

<http://www.bernardine.com/gemstones/gemstones.htm>

Gemstone Education

http://www.bluenile.com/gemstone-jewelry/gemstone-education?click_id=15956970

<http://geology.com/gemstones/>

http://www.feenixx.com/earth-science/Introduction_to_Minerals_Poster.htm

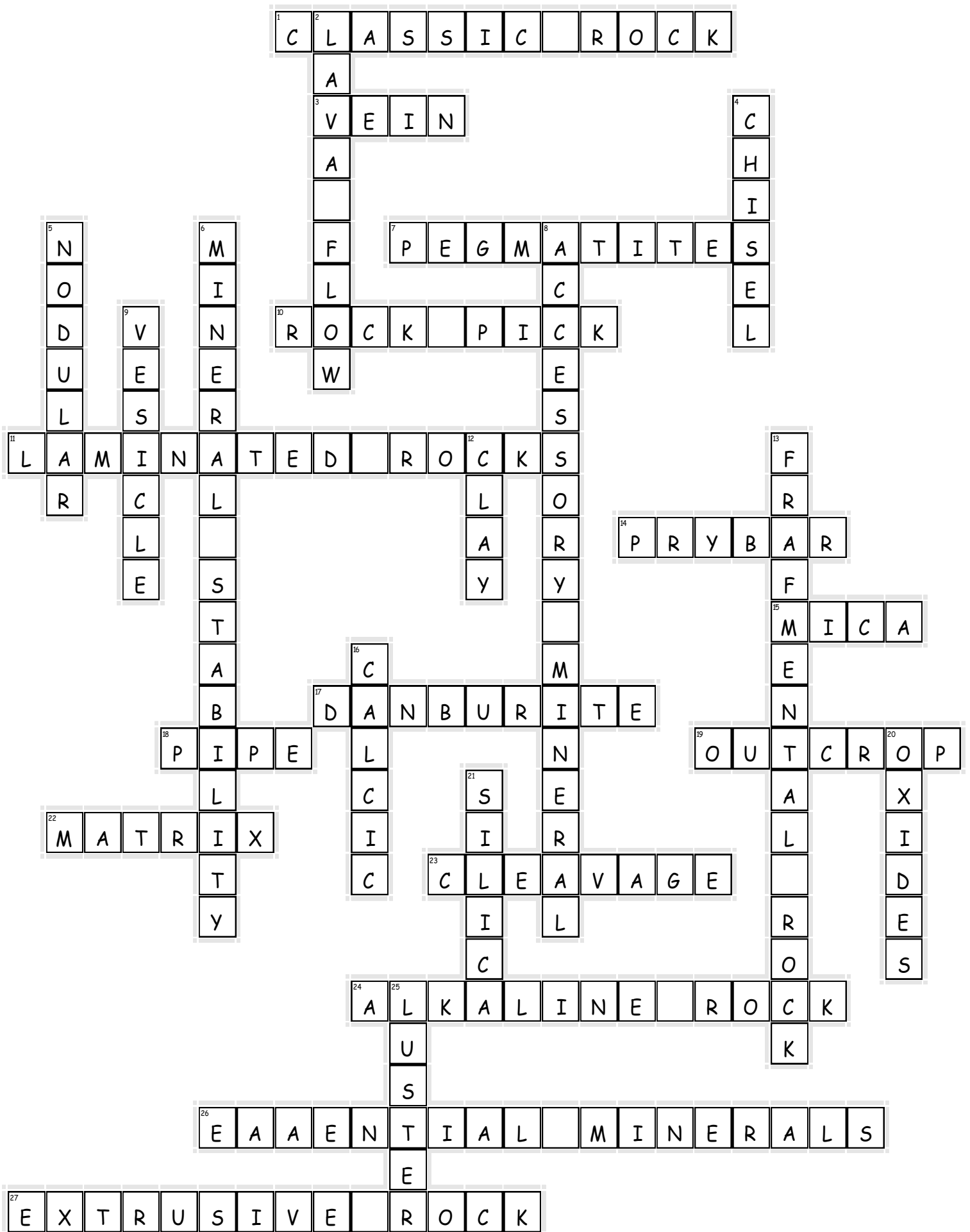
<http://www.mineralminers.com/html/gemstones.htm>

FOR THE ROCKPUPS HERE'S SOME CHRISTMAS COLORING FUN!



Kids use this link for some snowflake fun!

<http://www.scifun.ed.ac.uk/card/flakes.html>



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KGMS website:
www.kalamazoorockclub.org

MEETINGS

Monthly meetings are the first Tuesday of each month except: January, July and August
Location: Portage Senior Center
320 Library Lane Portage, MI 49002
Phone: 269-329-4555

Work bees/Picnic Dates
TBA in July and August

2013 KGMS ANNUAL SHOW

(May 3rd, 4th & 5th 2013)
Always the weekend before Mother's Day at the Kalamazoo County Expo Center 2900 Lake Street (Kalamazoo Fairgrounds) Kalamazoo, MI 49048
phone: 269-383-8778
website:
www.kalcounty.com/parksshow_calendar_expo.php

CLUB DUES

Due by December 31st
Family \$15.00/year
Single \$13.50/year
Senior/Couple 60 yrs \$13.50/yr
Senior/Single 60 yrs \$10.00/year
Student \$8.00/year

AFFILIATED WITH

AFMS: American Federation of Mineralogical Societies
website: www.amfed.org

MWF: Midwest Federation of Mineralogical and Geological Societies
webpage: www.amfed.org/mwf

MICHIGAN ROCK CLUBS PAGES

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HAPPY THANKSGIVING
AND
MERRY CHRISTMAS TO
ALL!