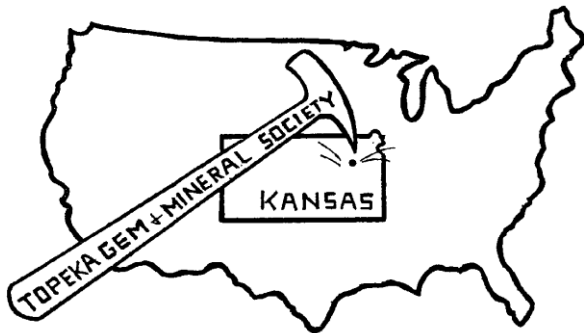


The Topeka Gem and Mineral Society, Inc.
 1934 SW 30th St. Topeka, KS 66611
 Rock2Plate@aol.com

THE GLACIAL DRIFTER



www.topekagemandmineral.org
 Facebook: Topeka Gem and Mineral Society Field Trip

The Topeka Gem & Mineral Society, Inc.
 Organized December 3, 1948

Member of Rocky Mountain Federation of
 Mineralogical Societies American Federation of
 Mineralogical Societies



The Glacial Drifter, Vol. 57, No. 12, Dec. 2014

The Purpose of the Topeka Gem & Mineral Society shall be exclusively educational and scientific: (1) to promote interest in geology and the lapidary arts; (2) to encourage the collection and display of rocks, gems, and minerals; (3) to encourage field trips and excursions of a geological, or lapidary nature; and (4) to encourage greater public interest and education in gems and minerals, cooperating with the established institutions in such matters.

Meetings: 4th Friday of each month, September to May, 7:30 pm, Stoffer Science Hall, Room 138, Washburn University.
 No meeting in December unless notified of a change. Picnic meetings are held June, July and August.

Dues: Individual, \$15.00; Couple, \$20.00; Junior (under 18 years of age), \$5.00. Dues are collected in December for the following year. Send dues to: **Millie Mowry, Treasurer, 1934 SW 30th St, Topeka, KS 66611.**

2014 OFFICERS AND CHAIRS

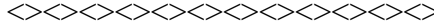
President	Mike Cote	220-3272	Cab of the Month	Debra Frantz/Fred Zeferjohn	862-8876
1 st Vice Pres.	Dave Dillon	272-7804	Field Trip Coord.	Larry Henderson	-----
2 nd Vice Pres.	Carolyn Brady	233-8305	Publicity	Donna Stockton	913-645-7677
Secretary	Cinda Kunkler	286-1790	Welcome/Registration	Jason Schulz	379-5538
Treasurer	Millie Mowry	267-2849	Property	M. Cote/D. Dillon	379-5538
Directors	Harold Merrifield	286-3548	AFMS Scholarship	Cinda Kunkler	286-1790
	Chuck Curtis	286-1790	Editor/Exchange Editor	Millie Mowry	267-2849
	George Reed	836-9277	Show Chairman	Harold Merrifield	286-3548
	Deborah Scanland	273-3034	Show Dealer Chairman	Dave Dillon	272-7804
Historian	Deborah Scanland	273-3034	Show Secretary	Cinda Kunkler	286-1790
Federation Rep	Harold Merrifield	286-3548	Jr. Rockhound Leader	Larry Henderson	-----
Corporation Agent	Millie Mowry	267-2849	Show Case Coordinator	Francis Stockton	913-645-7677
Librarian	Lucy Hrenchir	267-3325			
Web Master	Jason Schulz	379-5538			

Area Code for all numbers is (785).

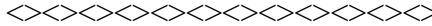
EXCHANGE BULLETINS WELCOME

For exchange newsletters contact the club via mailing address listed above or email at rock2plate@aol.com .

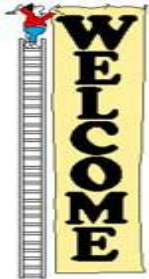
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We still need **200** Best Choice UPS Labels before Cinda can turn them in.
Bring them in at the next meeting.

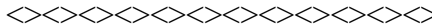


Make Welcome Our New Members!



Tiffany R. Dominguez and Madison Sharp (a Jr. member)

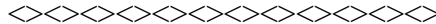
Brad Whaley and Hannah Whaley (a Jr. member)



Words From the President.....

Hi, to all members. I am happy that all of you that showed up for the Christmas dinner. I want to say thanks to Chuck Curtis for all he has done for the club, congratulation on being the member of the year. As a reminder, there will not be a general meeting at Washburn on the 4th Friday this month. The next club meeting will be on January 23, 2015. The program will be the silent auction to benefit the club. With the weather we are having it is a good time to clean out the rock pile of what you don't want any more and bring it into the auction in January.

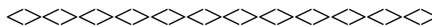
President and his rock stash



Words from our V. P.

Nothing new to report at this time. Everyone have a very Merry Christmas and a Happy New Year! Look forward to seeing everyone at the January meeting!!!

Dave!



TLC

George Reed had ankle replacement surgery at KUMC on December 5. He is presently in rehab at Aldersgate Village. He cannot put weight on that ankle for 6-8 weeks.

Meeting Minutes

Meeting of the Topeka Gem and Mineral Society – 11/21/14

Mike Cote' called the meeting to order.

Thomas announced 27 members & 2 guests are present for the meeting, door prize was awarded. (We need more door prizes – bring them to the next meeting!)

The minutes from the October meeting were printed in The Drifter. Chuck made a motion and Mike 2nd to accept as printed.

Millie Mowry is out of town, Cinda gave the treasurers report, also reminders that dues are due and about the Christmas dinner. Motion was made to accept the report, by Harold and Dave 2nd, motion carried.

Correspondence: None. Committee reports: AFMS-Cinda, still collecting Best Choice labels. Publicity-Donna is out of town. Historian-Deborah, plans to meet with some volunteer help next week to get started. Show Chair/Dealer Chair Harold & Dave, nothing to report at this time. The board will be working on the budget for the club and show in January.

Field Trip-Larry is planning to go to the HMS Beagle store in Parkville MO for this month's field trip. There will be no December field trip. Fossil interest group meets Dec 2 & 16th. There are copies of the Field Trip Calendar available. Junior Rockhounds will meet on Dec 4 – Jason will do Earth & Space as the lesson. No advisors meeting that night. A Junior Rockhound badge was awarded to Zach – congratulations! Larry also has an order form for vests if anyone is interested.

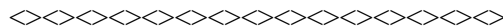
New Business – TGMS Officer Ballot for Year 2015 were distributed. Mike asked for nominations from the floor. With no suggestions from the floor and all officers on the ballot are current, Harold moved that we waive the vote and re-elect current officers. Kathy seconded, motion carried

With no further business, Dave motioned, the meeting be adjourned, Chuck 2nd, motion carried. Carolyn introduced our - program tonight is our own 'Resident Dinosaur Hunter' Mark Ellis talking about the digs he participated in this year.

Dave announced the Cab of the Month Winners are:

Member Cab: Dave Dillon – Biggs Jasper, Member Jewelry: Dave Dillon – Sterling Fire Agate Ring. Class Jewelry: Brody Vanmeter- Sterling London Bule Pendant, Class Cab: Yvonne Vanmeter – Jasper.

Respectfully submitted by Cinda Kunkler, Secretary



Field Trip Calendar - October 2014

The first and third Tuesday night the Fossil Special Interest Group will meet at 7:00 p.m. at Baker's Dozen, 4310 SW 21st St, Topeka, KS. We will discuss fossils and other collections. Come join us with show and tell.

An up-to-date Calendar can be found on the Topeka Gem and Mineral Society Website:

<http://topekagemandmineral.org/calendar.html>

Public Facebook Page:

<http://www.facebook.com/pages/Topeka-Gem-and-Mineral-Society-Field-Trips/92795058262>

Trips dates are tentative and subject to additions and change. E-mail Larry if you have an interest in any of these trips LHenderson85@gmail.com Larry Henderson, Field Trip Chairman

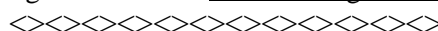
- December 16, 7:00 p.m. Fossil Special Interest Group, Show & Tell, at Baker's Dozen.
- No December Field Trip
- January 6, 7:00 p.m. Fossil Special Interest Group, Show & Tell, at Baker's Dozen.
- January 24, Field Trip TBA

Additional Show Dates:

Jan 24, 2015 Lincoln Gem & Mineral Club's 36th Annual Rock Swap 1 p.m. to 5 p.m., Bethany Park Enclosed Shelter, 64th & Vine Streets, Lincoln, NE., contact Jayne Beer 402-890-3307.

April 4-5, 2015 57th Annual Lincoln Gem & Mineral Club Show, Lancaster Event Center, 84th & Havelock, Lincoln, NE. Sat. 9 a.m. to 6 p.m. Sun. 10 a.m. to 5 p.m. www.lincolngemmineralclub.org

For additional listings of gem shows see www.rockngem.com



TOPEKA JUNIOR ROCKHOUNDS



Facebook:

<http://www.facebook.com/TopekaJuniorRockhounds>

Top register for the Junior Rockhounds or any of the classes,
email

Shirley Schulz, Program Secretary sschulz@kdheks.gov.

Call Dave Dillon 272-7804, or email davidd5124@aol.com for
information on lapidary classes.

Rockhounds awarded new badge/patches

New Member Badges – 2 Stone Age Tools & Art - 2

Madison Sharp

Hannah Whaley

Hannah Whaley

Zach Smith



The Junior Rockhound Activity Center was open at the November 21st meetings. Students learned about Dinosaurs. The Activity Center is planned for the January 23rd meeting also. Hours are 7:00 to 7:45 PM. Zach Smith received his Future Rockhound Patch from President Mike Coté at the November meeting. Five Junior Rockhounds attended the Earth in Space Class, December 4th. We welcome the new members. The next Class will be Rocks & Minerals, January 8, 2014, by Brad Davenport.

Classes start at 6:30pm at the Town & Country Christian Church, 4925 SW 29th Street.
The Topeka Junior Rockhound Advisors will meet at 6:30 pm.

Junior Rockhounds are encouraged to attend the club meetings to receive Patches and Badges.

Facebook: <http://www.facebook.com/TopekaJuniorRockhounds>



YOUR DUES ARE DUE!

As of December 31st all members that joined before October of 2014, your dues are now due. If you have any questions---call me at 267-2849 or email me at rock2plate@aol.com. Each of you should have a membership card with the due date on it.

Millie Mowry, Treasurer



ON CHRISTMAS EVE

*I was looking at my rock collection late on Christmas Eve.
When, this bearded guy in a red suit; came tugging at my sleeve.
"Ho! Ho! Ho! He laughed and said, " Is there something there for me?"
If you can spare a crystal, I would like one for my tree."
I was kind of startled and I jumped back in surprise.
I flattened out the jolly guy for he was half my size.
Oh, he was fat and had big boots but he wasn't very tall.
So when he landed on his butt he didn't have far to fall.
"I'm sorry Santa you startled me," I pulled him to his feet.
If you came for milk and cookies, I've nothing here to eat.
Again the HO! Ho! Ho! Filled the room, a smile was on his mug.
"Herkimer," he laughed, " You've got a big one in that vug."
On my table was limestone chunk with an empty cavity.
It was a piece of leverite; I'd brought back home with me.
I stared down in amazement at the huge crystal in that hole.
You couldn't buy better Quartz from the Devil, for your soul.
I stared in wonder, I could not speak; not a sound came to my lips.
It was the crystal I had wished for on a hundred collecting trips.
A water clear crystal, as big as my fist, it sparkled like lights on a tree.
I had never seen such a flawless gem, and Santa had left it for me.
I turned round to thank him and to wish him Christmas cheer.
But I was alone, the elf had gone; I shed a joyful tear.
Then the alarm went off and I awoke and screamed.
That Herkimer that Santa had given me; was just something that I dreamed.*

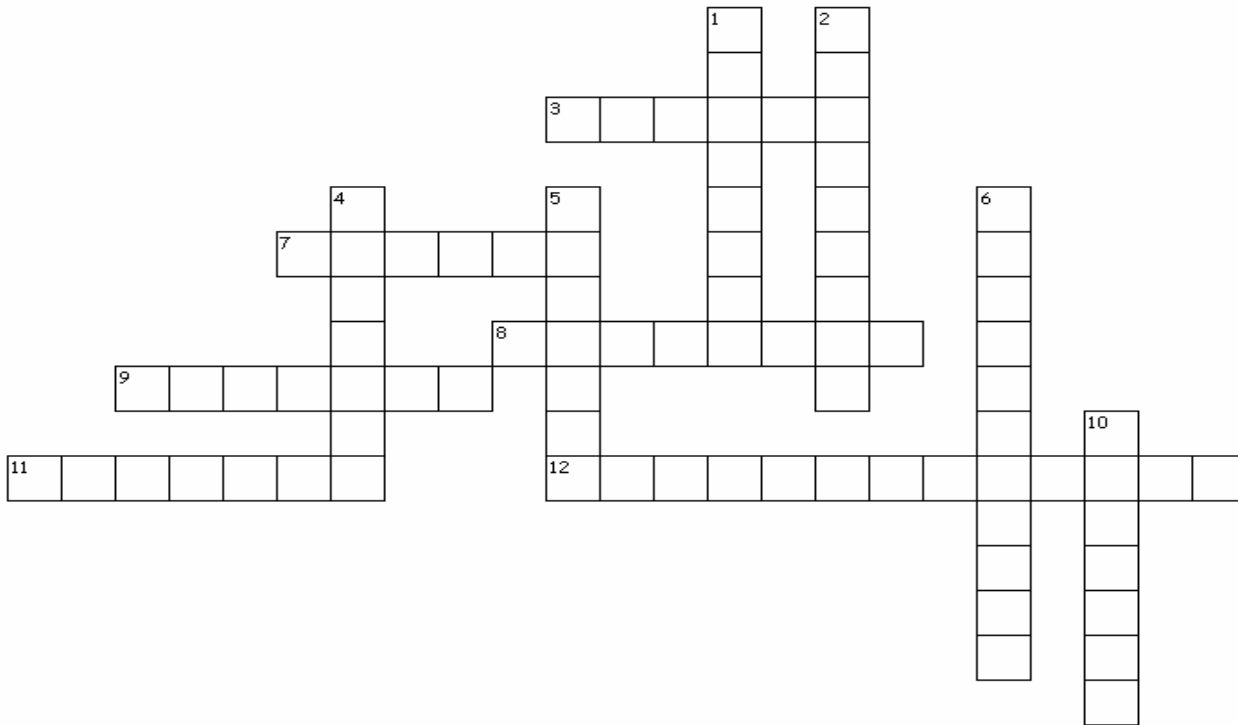
(Dick Stata Dec. 17 2004; via SCRIBE Oct-Dec 2014)



Merry
Christmas

“Red, Pink, or Orange Stones”

Can you put a name to the red, pink/violet or orange minerals that complete this puzzle?
Puzzle compliments of Puzzlemaker at DiscoverySchool.com. Via Pebble Press January 2007



Across

3. Octahedral crystals, often twinned
7. Usually in tabular crystals; heavy
8. Usually in cubic crystals
9. Streak brownish red; sometimes in long hair like crystals
11. Greasy or waxy pitch-like masses
12. Usually in pinkish masses or crystals with curved faces

Down

1. Usually granular, massive; heavy; streak scarlet
2. Intense resinous, adamantine luster
4. Bubbles easily in acid
5. Usually earthy: colour deep red or orange
6. Rhombohedral cleavage; bubbles in acid
10. Occurs only in Sussex Co., New Jersey



Why Do Minerals Have Different Hardness? By Don Peck

Hardness in minerals is resistance to scratching or abrasion. We all use the scale proposed by Friedrich Mohs in 1822 to estimate the hardness of our unknown finds. There are other scales used by professional mineralogists; the one most commonly used being the Vickers scale. It employs a micro indentation process in which a diamond point is pressed into the mineral.

We know that different minerals have different hardness's. Why? Well, hardness is related to the strength of chemical bond, the size of the ions or molecules in the structure, the electrical charge on the ions, and the closeness of packing.

Calcite is calcium carbonate, CaCO_3 . Siderite is iron carbonate, FeCO_3 . The size of the calcium ion is significantly larger than the iron II ion. Both ions have the same electrical charge and both minerals have the same crystal structure. The packing in siderite is closer than that in calcite, making for slightly stronger ionic bonds; and siderite has a hardness of $4\frac{1}{2}$ while calcite's is 3.

Aragonite and calcite are both calcium carbonate, CaCO_3 ; but the crystal structure is different. Calcite has a trigonal packing structure while aragonite is orthorhombic. There is less space in the orthorhombic aragonite, making it more densely packed, thus the ionic attractions are stronger. Its hardness is 4 as opposed to calcite's 3. (Aragonite also has a density of 2.93g/cm^3 against calcite's 2.71g/cm^3) We all know that diamond is the hardest mineral known and graphite is one of the softest. Both are pure carbon. But while the carbon in diamonds is linked in a three dimensional network of strong rigid covalent bonds, graphite has its carbon atoms linked strongly in flat, two dimensional, hexagonal networks with weak bonds between the stacked layers of nets.

Water of hydration reduces the hardness of minerals. A good comparison is anhydrite to gypsum. Anhydrite is calcium sulfate, CaSO_4 . Gypsum is calcium sulfate with two molecules of water, $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$. The water molecules do not carry an electrical charge and are loosely bonded in the structure. The result is that gypsum (2) is softer than anhydrite ($3\frac{1}{2}$).

Knowing the reasons for differences in hardness will not help us measure it, but it can help in differentiating between two minerals...in any case, knowing is satisfying.

(From 1/2008 Chips & Deposits via 2/2008 Canaveral Moonstone) via The Quarry, April, 2008; via SCRIBE Oct-Dec 2014)

A Big Thank You

From all of your current Club Officers.
We feel privileged that you have the confidence in our leadership of the club to keep us in office for another term. We need your in-put, your suggestions, and your help to keep the club running at its best.
Please volunteer when asked.

Answers to puzzle:

Across

- 3. Rhodolite
- 4. Monazite
- 8. Agate
- 9. Magnesite
- 11. Tanzanite
- 13. Yttrium

Down

- 1. Serpentine
- 2. Hematite
- 3. Rutile
- 5. Silver
- 6. Realgar
- 7. Inesite
- 10. Coal
- 12. Epsomite

Buff Polishing Compound Combinations by Ralph and Audrey Belair of the Spokane Rock Rollers

The following are combinations recommended by experienced gem cutters.

Calcite Muslin and Tin Oxide
.....Velvet and Tin Oxide

FeldsparFelt and Cerium Oxide

GarnetLeather and Linde A
.....Leather and Chrome Oxide
.....Felt and Cerium Oxide

GoldstoneFelt and Cerium Oxide
.....Pellon and Cerium Oxide

Howlite Felt and Tin oxide
..... Leather and Linde A

Jadeite Leather and Linde A
..... Leather and Chrome Oxide
..... Muslin and Tin Oxide
.....Velvet and Tin Oxide

JasperFelt and Cerium Oxide
.....Leather and Linde A

Lapis Lazuli.....Leather and Linde A
.....Leather and Chrome Oxide

Malachite.....Leather and Linde A
.....Leather and Chrome Oxide

Nephrite.....Leather and Linde A
.....Leather and Chrome Oxide
.....Muslin and Tin Oxide
.....Wood and Tin Oxide
.....Velvet and Tin Oxide

Opal.....Felt and Cerium Oxide
.....Velvet and Tin Oxide
.....Muslin and Tin Oxide

Quartz.....Felt and Cerium Oxide
.....Leather and Cerium Oxide
.....Pellon and Cerium Oxide
.....Felt and Tin Oxide

RhodocrositeLeather and Linde A
.....Leather and Tin Oxide
.....Leather and Diamond

SerpentineLeather and Linde A
.....Leather and Tin Oxide

SodaliteFelt and Cerium Oxide

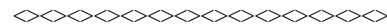
Tiger EyeLeather and Linde A
.....PellonandCerium Oxide

TurquoiseLeather and Linde A
.....Leather and Tin Oxide
.....Leather and Zam

Unakite Felt and Cerium Oxide

VarisciteLeather andLindeA
.....Leather and Tin Oxide

(Originally published in the Northwest Newsletter 8/92, via Nickel Basin Rockhound 6/05, via Chips and Chats 9/05, via Breccia, 03/06; Via the Rockhounder Oct 2014)



Tea Time

Little Johnny was left to fix lunch.

When his mother returned with a friend, she noticed that Johnny had already strained the tea.

The two women then sipped their tea happily while having lunch.

"Was it hard finding the tea strainer in the kitchen?" Johnny's mother asked.

"I couldn't find it Ma, so I used the fly swatter," he replied.

His mother nearly fainted, so Johnny hastily added:

"Don't get excited, Ma, I used the old one!"
(Internet Humor)