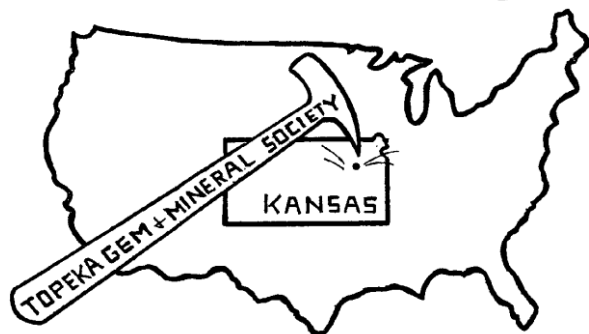


The Topeka Gem and Mineral Society, Inc.  
 1934 SW 30<sup>th</sup> St. Topeka, KS 66611  
 Rock2Plate@aol.com

# THE GLACIAL DRIFTER



[www.TopekaGMS.org](http://www.TopekaGMS.org) or  
 Facebook: Topeka Gem and Mineral Society Field Trips

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. 66, No. 6  
 June 2023



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: 4<sup>th</sup> Friday of each month, September to May, 7:15 pm, First Congregational Church, 1701 SW Collins Ave, Topeka, KS 66604. 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 30<sup>th</sup> St, Topeka, KS 66611.**

[www.TopekaGMS.org](http://www.TopekaGMS.org)

## 2023 OFFICERS AND CHAIRS

President	Brad Davenport	379-8700	Cab of the Month	Donna & Russell Hedge	620-660-1651
1 <sup>st</sup> Vice Pres.	David Dillon	221-4315	Field Trip Coord.	Cole Collins	220-4027
2 <sup>nd</sup> Vice Pres.	Cinda Kunkler	286-1790	Publicity	Donna Stockton	913-645-7677
Secretary	Stacy Haug	1-857-3350	Welcome/Registration	Harold Merrifield	633-9745
Treasurer	Millie Mowry	267-2849	Property	Chuck Curtis	286-1790
Directors	Doria Skinner	231-9347	AFMS Scholarship	Cinda Kunkler	286-1790
	Jim Baer	785-256-2432	Editor/Exchange Editor	Millie Mowry	267-2849
	Shirley Schulz	n/a	Show Chairman	Millie Mowry	267-2849
Historian	Cinda Kunkler	286-1790	Show Dealer Chairman	Dave Dillon	221-4315
Federation Rep	Chuck Curtis	286-1790	Show Secretary	Cinda Kunkler	286-1790
Corporation Agent	Millie Mowry	267-2849	Jr. Rockhound Leader	Jason Schulz	640-6617
Librarian	Amy Fluke	862-8876	Show Case Coordinator	Cinda Kunkler	286-1790
Web Master	Jason Schulz	640-6617			

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](mailto:rock2plate@aol.com).  
Permission is granted to reprint articles only if proper credit is given to the author, Glacial Drifter and the date.

### Fodder from the president. June/2023

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Good day everyone.

Our mindset says “Summer” but the Sun and calendar says “Spring”. Be that as it may, many folk’s agendas have changed this week. Kids and young adults are out of schools. Teachers and school employees are on vacation. Us retired folks just turn the AC a little lower. But for most people, life goes on as it did last month. Where do you fit into this equation?

Do you have traveling in your plans? Maybe some rock hunting in a new exotic destination. Maybe the same place as last year. Share with us your plans over at [Topeka Gems, Minerals & Fossils](https://www.facebook.com/groups/451222786937878)<https://www.facebook.com/groups/451222786937878>

Sammy Wall will be taking off soon for about 5 weeks to the Pacific Northwest. His annual trek will take him to some very fine dig sites.

Millie will be heading off to Colorado with her girlfriends for some serious R&R.

Cinda, Chuck, Doria, her husband Chad, maybe her daughter Lee Ann, who is one of our newest members and myself will be headed to Casper WY. There we will attend the local clubs show and the annual convention for the Rocky Mountain Federation of Mineralogical Societies. There promises to be some great rock hunting excursions to some fine collecting sites. Sammy may join us on his return travels.

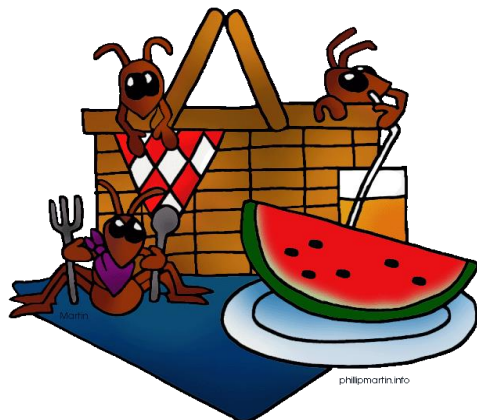
If you have any ideas or concerns about our club, the RMFMS or the AFMS, this is the time and the place to have them voiced. These people will listen and are eager to hear what you folks are thinking about. We are all delegates to the convention so bring us your thoughts and we will present them to convention.

Did you know that the Topeka Gem & Mineral Society has a library? Probably not, as the total of books have rested in cardboard boxes in Millie’s basement. I am thrilled to announce that this is going to change. I am also proud to announce that I have appointed Amy Fluke as official club Librarian. Actually, she volunteered and I jumped on her willingness to do this. She has the room and shelves to create a real space for us to use. She probably could use some help transporting boxes and organizing the books we have. Reach out to her and see if you could lend a hand.

Remember that for the next three months General Club Meetings, we will have a covered dish dinner. I look forward to massive amounts of carbohydrates.

That is all for now and I hope you have a journey planned in your near future.

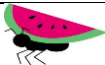
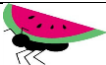
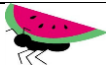

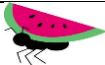
Brad



### *It's Pot-Luck Time!*

Bring your favorite dish or two to share, your table service and your drink. We gather at **6 p.m. and eat at 6:30 p.m.** at the church—no general meeting. **This is for the months of June – July - and August.**

# TTGMS Event Calendar

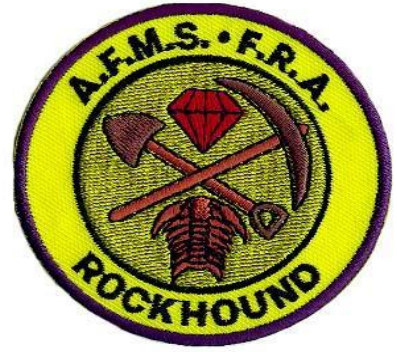
JUNE 2023			July 2023		
1	T		1	S	
2	F		2	S	
3	S		3	M	
4	S		4	T	Brad's Shop Open 6-10 pm
5	M		5	W	
6	T	Brad's Shop Open 6-10 pm	6	T	Jr RHDS 6 p.m. at FC Church 1701 SW Collins Fluorescent Materials-Will G.
7	W	Publicity Meeting –Elmont Church 6:30 pm	7	F	
8	T		8	S	
9	F	<b>NO Board Meeting DURING SUMMER MONTHS</b>	9	S	
10	S		10	M	
11	S		11	T	Brad's Shop Open 6-10 pm
12	M		12	W	
13	T	Brad's Shop Open 6-10 pm Millie -gone	13	T	
14	W		14	F	<b>NO Board Meeting DURING SUMMER MONTHS RMFMS CONF – Casper, WY</b>
15	T		15	S	<b>RMFMS CONF – Casper, WY</b>
16	F		16	S	<b>RMFMS CONF – Casper, WY</b>
17	S		17	M	
18	S		18	T	Brad's Shop Open 6-10 pm maybe
19	M		19	W	
20	T	Brad's Shop Open 6-10 pm	20	T	Shawnee CO Fair 20 <sup>th</sup> -23rd
21	W		21	F	
22	T	 	22	S	 
23	F	General Meeting First Congregational Church eat at 6:30 p.m. 1701 SW Collins Ave	23	S	General Meeting First Congregational Church eat at 6:30 p.m. 1701 SW Collins Ave
24	S		24	M	
25	S		25	T	Brad's Shop Open 6-10 pm
26	M		26	W	
27	T	Brad's Shop Open 6-10 pm	27	T	
28	W		28	F	
29	T		29	S	
30	F		30	S	
			31	M	

## As A Reminder !

If you are wanting to take a class in Silversmithing or wire wrapping you are to call either Jim Baer at 785-256-2432 or email him at [jimbaer73@gmail.com](mailto:jimbaer73@gmail.com), for wire wrapping contact Millie Mowry at 785-267-2849 or email [rock2plate@aol.com](mailto:rock2plate@aol.com) the Monday before class to let them know you will be there.

# JR ROCKHOUND Classes & Reminders

Here are reminders of the next months of classes: **First Congregational Church, 1701 SW Collins Ave., Topeka, KS.** Sign in starting at 6:00 pm and classes starting at 6:30 pm. 1st Thursday of each month.



<https://www.facebook.com/TopekaGMSJuniorRockhounds>

To register for the Junior Rockhounds or any of the classes, email: Jason Schulz at: [Fleetcommander@att.net](mailto:Fleetcommander@att.net)



Next Class: July 6, 2023, Fluorescent Materials with Will Gilliland

Reminder: If you want to earn the patches from the classes that you have attended you need to turn in your homework assignments.

We need your **BEST CHOICE** UPC Labels --

Bring them to the monthly meeting, and give them to Cinda Kunkler.



For those that cut at home, we have a new dealer that has requested we save our chips & broken pieces for him this year. There will be a bucket in the cutting room at Brad's shop also for you to place the items in. Please bring them to Millie and I will get them to him.



Summer is here! That means TTGMS Picnic's! Friday's at 6:00 - eat at 6:30. Always the 4th Friday June 23, July 28 and August 25th - we have a shared pot-luck picnic (indoors) at the church. Bring your favorite dish or 2 to share along with your own table service and drink. Those with special diets can always bring their own meals, but, please come join us for tales of the 'rock that got away'. We encourage the families of the Juniors to join us, this is a great opportunity to get to visit with everyone. Bring ideas for our show, field trips, rocks you have found, tales of road trips etc. Looking forward to seeing you all there! NO Ants here!



Cinda Kunkler, 2nd Vice President & AFMS Chairman



## ***We Have A New Librarian!***

Amy Fluke, has volunteered to take over this task and as soon as she gets it organized on the shelves, Club members can check out the books that we have. She will let us all know when she is ready to proceed with this.

You can contact her at 785-608-0386 or [jayhawk1072@gmail.com](mailto:jayhawk1072@gmail.com).

### Dillons Community Reward Program

The Topeka Gem & Mineral Society has enrolled with the Community Rewards with Dillon's Store. To sign up for it, eligible participants shall be Plus Card holders and must have the card present when making a purchase. Purchases of gift cards, alcohol, tobacco, government assisted pharmacy expenses, postage stamps, Kroger CO. Stores gift cards, green dot prepaid reloadable products, MoneyPaks, 1-2-3- Rewards reloadable Visa prepaid debit card, Recharge cards, Am. Express gift Cards, Visa load gift cards, lottery & Promotional tickets, money orders, Western Union Fuel & sales tax are excluded form eligible purchases.

1. You can enroll your shopper's card at: [www.dillons.com/communityrewards](http://www.dillons.com/communityrewards) once you sign up it will take about 7 to 10 days to be activated and our Club to start earning the rewards. At the bottom of your Kroger receipt you will notice "At your request, Kroger is donating to 'your organization name'".
2. You will have to re-register each year.

If you have any other questions email [DCR@dillonstores.com](mailto:DCR@dillonstores.com)



**We are signed up to work at the 2023 Shawnee County Fair. We will need volunteers to work on Friday & Saturday July 21 & 22nd. We will show off our collections, probably paint rocks and talk to folks about our show - handing out coupons. Juniors are welcome to help - everyone can share a shift for an hour or two. Please let us know if you are willing to help. Thank you all! Cinda**



Working Together WORKS!

## Ken's Chemistry Corner: All About Titanium

(Source: The Sooner Rockologist, OGMS May 2023)

-Titanium (Ti) was independently discovered twice in the 1790s. William Gregor was analyzing a sample of a new mineral called ilmenite in Great Britain. After separating the magnetic, iron-containing components, he was left with a white oxide that didn't match any known element. Similarly, Martin Heinrich Klaproth discovered a white oxide from a German sample of rutile and named the new metal associated with it titanium, after the Titans from Greek mythology. Klaproth later heard of Gregor's discovery and determined that they had both discovered the same substance.

-Titanium is very common; it is the 9th most abundant element in the earth's crust. It is present in most igneous and sedimentary rocks and makes up 0.5 to 1.5% of common soil. Curiously, although common, it is spread throughout the crust and forms few highly enriched ores of industrial significance.

-The most common titanium-containing minerals include various crystalline forms of titanium dioxide such as anatase, brookite, rutile and titanite. Other minerals include ilmenite (titanium iron oxide) and perovskite (calcium titanium oxide). Only rutile and ilmenite have economic importance, but even these minerals are difficult to find in mineable deposits. The leading producer of titanium is China, followed by Japan and Russia. Titanium is also found in meteorites and can be detected in cool, red M-type stars. Curiously, moon rocks returned from the Apollo missions contained as much as 12% titanium oxide!

-Although discovered in the 1790s, 'pure' elemental titanium metal is very difficult to free from its oxide because it forms very strong bonds with oxygen. Titanium metal wasn't prepared until 1910, and it wasn't prepared outside of the laboratory until 1932. The process used in 1932 is still used industrially today.

In the 1950s and 60s the United States and Soviet Union pioneered the use of titanium in military equipment. Titanium was an integral part of Soviet submarines and tanks through the Cold War, while in America it was used in aircraft, including the state-of-the-art SR-71 Blackbird.

-Titanium metal is useful for such applications, because titanium alone has properties similar to lower grade steel. It can also be alloyed with many other metals. It has very high strength, can be used at high temperatures, and has excellent corrosion, fatigue, and crack resistance. Thus, it can be used in aircraft frames, engines, armor plating, landing gear, ship hulls, propeller shafts and many other things.

-As common as titanium metal products are around the modern world, still 95% of all titanium ore gets refined into pure titanium dioxide. Titanium dioxide is the most ubiquitous white pigment because it is intensely white, opaque, is chemically inert, doesn't fade in sunlight, and it is non-toxic. Look around your house at anything white and it probably contains some amount of titanium dioxide. Likely products include paint, paper, toothpaste, and 'white' plastics.

-Titanium metal is occasionally used in jewelry. It is very inert and perfect for rings for people allergic to other metals, as well as swimmers, where corrosion resistance is important. It can also be added to gold to improve its strength. This can be accomplished with 1% titanium, allowing it to still be classified as 24-karat gold, but with the hardness of 14-karat gold.

-Also, because it is inert, non-toxic and bio-compatible, titanium metal is commonly used in medical devices such as dental implants, joint replacements and orthopedic screws and plates. It is also non-magnetic, so there is no danger of people with titanium implants undergoing MRI scans. More recently, titanium devices can be 3D printed to allow customization for each patient and providing a large surface area for natural bone integration into the device.

-Titanium has no biological role. It is thought that we ingest as much as a gram of titanium in our food every day, but it simply passes through the body. Although still not understood, it can stimulate growth in plants.



The Topeka Gem & Mineral Society  
General Meeting, May 26, 2023 at 7:30 p.m.

**Call to Order:** President Brad Davenport calls the meeting to order at 7:32 p.m. There are 29 members and 4 guests present. Four door prizes are given out.

**Approval of Minutes:** Chuck Curtis moves to approve minutes from the April General Meeting as they are written, Jason Schulz seconds. Motion carries.

**Treasurer's Report:** Millie Mowry reports the club account balance. She asks for approval to pay Lamar Advertising in the amount of \$2176 for 4 billboard locations to advertise the October show. Cinda Kunkler moves to pay the bill to Lamar, Chuck Curtis seconds. Motion carries. If we are going to participate at the Shawnee County fair on July 20th-23rd, we need to fill out the vendor application. There is no booth fee unless electricity or wi-fi is needed. Cinda will submit the application for this.

**Old Business:** Jim Baer has offered to put on a workshop on the process of broomcasting. The question is raised as to whether to do this on a Tuesday night, or on a Saturday, or another daylight of the week? It is decided that Saturdays might work best.

**Communications:** Millie has been in communication with Lamar.

**Show:** We have a total of 14 paid vendors. There are 2 new dealers: Dream Prospecting & Francina Davis. We should have a total of 20 vendors for the show. Millie has been in contact with Pete the caterer who is interested in providing his services for the show.

Amy Freeman reports the Wichita show had many more activities available for kids than we had last year. She said parents who attended our show expressed disappointment that we did not have enough children's activities. She would like to see us bring in more games this year. Suggestions include: 1) a prize wheel, 2) Mixing chips of gemstones in with regular pebbles that the kids could dump out and go through with tweezers, 3) Rock pile - we currently do this, 4) A touch and feel room - bring in specimens that they would touch with their eyes closed to see if they could guess what it is, 5) Pat Gilliland suggests having someone demonstrate a simple wire-wrapping activity that kids could make and take with them, 6) A rock walk - similar to a cake walk. Per the contract with the ExpoCentre, we are allowed space outside of the building up to the sidewalk, so some activities could be set up out there. It is thought that this could entice parents to bring more kids to the show. Amy would like to pitch these ideas at the next Junior Rockhounds meeting to see if anyone would be willing to help volunteer to run these activities.

**Publicity:** Donna Stockton reports the committee has decided on the billboard graphics. They are working on bringing in a large donor/sponsor person. Flyers are ready to be printed and distributed. There is still talk about doing the treasure hunt/geocaching activity. We need someone who is clever at coming up with clues for this. It could be a big media event to have clues given out every few weeks. It was suggested that we maybe run a club event to send people out just to try it and see how it would work and what problems would arise. The next meeting is scheduled for June 7th at 6:30 p.m.

**Field Trips:** Junior Rockhounds recently went on a field trip to the Kansas River, Calhoun Bluffs, and the area by the theater. The following weekend, club members went on a trip in Nemaha County with Kirby Marker. There are currently no trips scheduled for the future.

**Junior Rockhounds:** Next class is scheduled for June 1st and will be "Special Effects" taught by Brad. Will Gilliland reports some of the Junior Rockhounds posters that they've done for homework are here on display tonight.

**Webmaster:** Nothing new to report on the website. The latest version of The Drifter is on the site. Jason asks members to please visit the website and contact him with any suggestions on how to make it look better, run smoother, etc. Donna Hedge will send the finished artwork for the show to Jason to put on the website.

**Shop:** Between 12 to 15 people have been regularly attending.

**Historian:** Cinda has a booklet that was found recently while going through the library inventory. It is about self-guided field trips in the Topeka area written by Will Gilliland. We do have a library that people can access to check out books. Millie and Amy will make a list of available books to put on the website.

**Time Sensitive:** None

**Adjournment:** With nothing further to discuss, Jason moves to adjourn, Brad seconds. Motion carries and the meeting is adjourned to the evening's program: "Kansas Glaciation" by Will Gilliland.

Submitted by: Stacy Haug, TGMS Secretary



## May's Cab of the Month

The Cab of the Month was by Sean Freeman with his Carnelian Abalone. Donna Stockton won the Specimen on the Month with the agate.

Jewelry was by Donna Hedge with the Opal wire wrap earrings. Also Class Jewelry was by Cinda Kunkler with a pendant wire wrap of a quartz stone.



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## TOUCHSTONE

Touchstone, Lydian Stone, or Basanite are all names for a velvet black jasper. This stone was used as early as 450 B.C. by ancient jewelers and goldsmiths because of its hardness and uniformity of texture and color, as a streak tablet for determining the relative amount of baser metal and pure gold in alloys. The sample is rubbed on the stone and the color is then compared with a series of standards of known composition.

The expert is able quite accurately to determine the fineness of the sample. The streak becomes redder as the percent of copper increases or yellower as the percent of gold increases.

Today's use – for backing opal doublets and triplets to make color more brilliant and the stone more durable. It can also be used as it is as it will take a high polish.

(Source: a reprint from the Glacial Drifter May/June 1991)

TIDBIT....Life is a grindstone; whether it grinds you down or polished you up depends on what you're made of.  
(Another reprint for the Glacial Drifter May/June 1991)