

# ROCK TALK

May - June 2012  
Volume 6, Issue 5

Tucson Gem and Mineral Society, Inc.  
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## President's Page

Well, my friends, this has not been my first rodeo, nor will it be my last, but it has been one of the most memorable. For two years you have entrusted me with the Presidency of our Society and I thank you for that privilege. I have come to know many of you so much better and I cannot tell you how much your support and encouragement have meant to me. A word here, a pat on the back there; it has made a rather difficult position not only bearable but rewarding. I have taken this job very seriously and I hope I have done it justice and met your expectations.



I also want to thank the Board of Directors with which I have had the opportunity to serve. Really smart folks that have shared ideas and opinions that paved the way for changes and updates that were critical to the integrity and success of our Society. We did not always agree but we always had respect and admiration for each other.

My sincere appreciation to the Office Staff. I have depended on them for historical information, current input and the organizational skills it takes to keep this Society running smoothly. And believe me when I say, that is no easy task. They have been patient with my endless questions and reliable in their feedback.

Thanks to all of you that have helped out during the year with the refreshments, the educational classes, the donations, the egg cartons, the time spent on making our Show work, assisting in the office, doing all the things that make a successful volunteer organization possible. No matter how small the job seems, it and you are important to our Society.

So that brings me back to my job of reminding everyone that these contributions must continue. We still need volunteers for our summer potlucks, refreshments at the meetings next fall, egg cartons for our Junior Education and some help from a few hardy souls when we get ready to move boxes and stuff into our new shed. Also, when some of you dealers and collectors start high grading your inventory, keep the TGMS in mind for donations. We can always use material for our Micromounters, freebies for those that do not have the opportunity to get out much in the field to collect, our meeting "giveaways" and Junior Education.

Now it is time for me to move on and make way for a new President. You will be presented with an excellent slate of Officers to carry on for the next year. I'm sure they can expect the same enthusiasm and confidence you have

President's Page ... CONTINUED

given me. With that kind of support, they cannot fail.

Have a wonderful summer, come back from your travels with great specimens and stories. Be safe in your pursuits.

Diane Braswell, President  
Tucson Gem and Mineral Society



## Tucson Gem and Mineral Society, Inc. Officers & Directors

President: Diane Braswell, ph. 520.574.1942  
Vice President: Mark Ascher, ph. 520.886.0397  
Recording Secty.: Marilyn Reynolds, ph. 520.296.0688  
Treasurer: Ellen Alexander, ph. 520.743.9383  
Membership Secty.: Alrene Hibben, ph. 520.529.6502  
Director: Bill Hodgson, ph. 520.575.0731  
Director: Peter Megaw, ph. 520.529.2231  
Director: Anna Domitrovic, ph. 520.578.1173  
Past President: Gene Schlepp, ph. 520.325.4534  
Librarians: Robert & Elaine Royer

*Encouraging interest and  
study in geology, mineralogy,  
lapidary and allied earth  
sciences.*



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## TGMS General Meeting March 5, 2012

General Meeting, 3.5.12 ... CONTINUED

The General Meeting of the Tucson Gem and Mineral Society was called to order by President Diane Braswell at 7:35 p.m. New members and guests were recognized and welcomed to the meeting.

**ANNOUNCEMENTS:** Bill Hodgson is investigating a possible field trip to Delta, Utah for Dugway geodes at the claim owned by Shane Crapo, owner of the Bug House. The cost will be \$120 to collect geodes. If less than 15 people sign up for the trip, the date will be October 6, 2012; if more than 15 people, Bill may be able to negotiate a date possibly in September. The group may also go to Topaz Mountain, a BLM rock hound site. An "interest" sign-up sheet will be at the April General Meeting.

**PROGRAM:** "Up the Middle of Australia: Azurite to Zircon" by Ray Grant, a retired geology professor, who co-authored the third edition of *Mineralogy of Arizona* and is currently working on the fourth edition. He is chairman of the Flagg Mineral Foundation and has co-chaired the Minerals of Arizona Symposium for 19 years. His talk covered his trip through central Australia from Adelaide to Darwin and included interesting facts about plants (over 1400 species of native orchids) and animals (blue tongued lizards, red spiders under gypsum pieces, emus, burros, horses, camels and kangaroos) as well as mines and minerals. Many Australian men take a shed and line it with shelves of minerals. The mining history on the Yorke Peninsula near Adelaide is similar to Arizona's history. Gypsum is used for parking areas and roads in the region. North of Adelaide is Tom's Quarry, a phosphate mine, with many secondary phosphate minerals, such as minyulite, an aluminum phosphate. Next was the Iron Monarch Mine where 162 minerals have been found, most by Glen Francis, including a famous red variscite. Further north at Mt. Gunson, evaporation in pools results in green gypsum if there is copper in the water, otherwise brown. Hills of waste from individual opal mine claims are seen further north. Coober-Pedy has many underground tourist attractions and open areas for rock hounding. Then on to Malbunka Copper Mine which is the source of azurite suns in kaolinite. The other minerals there are malachite, chrysocolla and atacamite in sandstone. Gemtree, further north, has zircons in carbonitite. Travel further to Brown's Prospect for pyromorphite, cerrusite and malachite and finally to Gunpoint Beach for fossils. Watch out for salt water crocodiles!

**BREAK:** Many thanks to Jo Anne Sam for delicious cakes and grapes; to Martha Erdem for a chicken starter and crackers; and to Donna Pugh for the cookies.

**APPROVAL OF MINUTES: MOTION:** To approve the

January 9, 2012 and February 6, 2012 General Meeting minutes with the following correction to the February minutes under Field Trips: the trip to Rosemont Copper will be March **10th**. Seconded and approved.

### OLD BUSINESS:

- Field Trips by Kerry Towe:
  - For the Rosemont trip on March 10<sup>th</sup> a map and release to be signed are in the back room. The tour will be from 9:00 a.m. to noon and there will be surface collecting for azurite and malachite following the tour.
  - June 9-10, 2012 will be the trip to Nevada to the Apache Blue Mine which is near Tonopah, Nevada, the number one mine in the world right now for turquoise. The cost is \$50 to keep what you find unless it is high grade turquoise. There may be trips to other turquoise mines owned by the same family.
  - April has a local mine trip in the works.
  - Trips to Mission, Ray and Silverbell Mines will be in the fall.
- TGMS calendars are still for sale in the back room. They are \$15 or 2 for \$25.

### NEW BUSINESS:

- The TGMS office will be closed Wednesday, March 7<sup>th</sup>.
- There are sympathy cards in the back room to be signed for Dick Gottfried whose wife died recently.
- Bill Shelton's class will be Tuesday, March 6<sup>th</sup> from 7:00 – 8:30 p.m. on "Fluorescence."
- Donations of egg cartons are needed for next year's Junior Education area at the Show.
- Bob Downs and Peter Megaw have submitted one name for this year's TGMS scholarship. Anyone who knows a good candidate for the scholarship, please submit their information to the office.

**DRAWING FOR DOOR PRIZES:** Winners were Ron Johnson, Ted Rupp, Wes Osborn, Donna Pugh, Wolfgang Mueller and Misha Ferinech.

The meeting was adjourned at 9:08 p.m.

Respectfully submitted,  
Marilyn Reynolds, Recording Secretary

## TGMS General Meeting April 2, 2012

The General Meeting of the Tucson Gem and Mineral Society was called to order by President Diane Braswell at 7:35 p.m. Visitors were recognized and welcomed to the meeting.

**ANNOUNCEMENTS:** Shirley Klos is having a sale April 9<sup>th</sup> and 10<sup>th</sup> from 9:00 a.m. to 2:00 p.m. to sell her late husband's minerals, slabs and lapidary supplies. The address is 1241 Paseo Marazilloso in Green Valley.

Michael Conway, Chief, Geologic Extension Service, Arizona Geological Survey would like TGMS to join his efforts for junior education and community outreach. He will come to the next meeting to talk to the membership.

**PROGRAM:** Esther Posner, a graduate student in the Department of Geosciences at the University of Arizona, spoke on "How Experimental Mineralogy Can Be Used to Address Planetary Questions." The first part of her lecture dealt with insights into the crystal chemistry of the Earth's Transition Zone using seismic waves which are affected by mineral density to determine Earth's interior structure. The second part covered planetary application of cation diffusion in mantle minerals. She explained her experiments to determine the diffusivity of Cr in homogeneous, inclusion-free spinel from Sri Lanka. The Cr coated crystals are heated for a specific time, after which the diffusion depth at different temperatures is determined. Esther, who is a performance poet, musician and composer, then treated the members to a very entertaining "Tectonic Petrometer," an illustrated, spoken-word journey through Earth history.

**BREAK:** Many thanks to Skip and Jean Barkley for the refreshments consisting of grapes, cookies, chips, mini pastries and snack mix made by Jean.

**APPROVAL OF MINUTES: MOTION:** To approve the March 5, 2012 general meeting minutes as published in Rock Talk. Seconded and approved.

### OLD BUSINESS:

- Field Trips: Bill Hodgson talked about the trip to Utah for Dugway geodes, agate, obsidian and topaz. If more than 15 people sign up, the trip will be September 22<sup>nd</sup>; otherwise it will be October 6<sup>th</sup>. The fee to collect geodes is \$120.00. TGMS will pay \$60.00 of this. Members who are going need to bring \$60.00 to the May meeting. There is a sign-up sheet in the back room.

General Meeting, 4.2.12 ... CONTINUED

Kerry Towe reported:

- The March 10<sup>th</sup> trip to Rosemont Mine was attended by 18 members and was very interesting. Some collecting was done and the slag pile at an old mine site contained very colorful and nice slag.
- May 19<sup>th</sup> will be a trip to Dobell Ranch near Holbrook to collect petrified wood. The cost is \$28 for a five gallon bucket. There is sign-up sheet in the back room.
- June 8<sup>th</sup> through 10<sup>th</sup> will be a trip to the turquoise mines near Tonopah, Nevada. There is a \$50.00 fee to collect at the high grade turquoise mine which will be paid by TGMS. Kerry will have maps and pictures at the next meeting. There is a sign-up sheet in the back room.

- There are still TGMS calendars for sale.

### NEW BUSINESS:

- Bill Shelton's class "The Mica Group" will be Tuesday, April 3<sup>rd</sup> from 7:00 to 8:30 p.m.
- 2013 TGMS Show: **MOTION:** To hold the 2013 Show. Seconded and approved.
- Summer potlucks: June and July are open. Any member who wants to volunteer their home or to help, please contact the TGMS office. The August potluck will be at the Desert Museum.
- Community Outreach in community and schools: There is a sign-up sheet in the back room for anyone who can help to any degree such as phone calls, school visits, contacting Little League, etc.
- Please bring egg cartons for Junior Education at the Show.

**DRAWING FOR DOOR PRIZES:** Winners were Janet Rupp, Louis Pill, Mark Marikos, George Stevens, Andy Anderson and David Witwer.

The meeting was adjourned at 9:10 p.m.

Respectfully submitted,  
Marilyn Reynolds, Recording Secretary

## Educators Enjoy Being 'Rockhounds'

What a day we had on Saturday, February 11. The members of Upsilon Chapter of Delta Kappa Gamma Society International (an honorary organization for outstanding women educators) spent the day at the Tucson Gem and Mineral Show™ learning about Arizona's long history of mining in its "Minerals of Arizona" Centennial exhibits. One of our members, Alrene Hibben, is also an active member of the Tucson Gem and Mineral Society. She was an excellent and knowledgeable guide through the many exhibits. Alrene was always patient as she answered our endless questions.

I liked how some exhibits focused on localities, others on mineral species, and then even others on individual mines. This method of organizing the centennial highlights made the show even more enjoyable for those of us who were not aware of the variety of minerals in Arizona. I was surprised to learn how many minerals were found in just one mine. Of course, I had my favorite – the lead mineral, wulfenite, with its array of colors was just absolutely beautiful. I was amazed at the intensity of its color. It made perfect sense to showcase it on the Tucson Gem and Mineral Show™ Poster.



We enjoyed seeing the artifacts on display from the Arizona Historical Museum. Seeing Geronimo's rifle and binoculars made his story even more real. Wyatt Earp's six

shooter gave a human touch to the history of Arizona. We were also impressed with the spectacular exhibits from all over the world. I never realized how supportive these museums are of the local Tucson gem and mineral community. To see minerals from Bisbee that are a part of the collection held by the National Museums of Scotland was quite a delight and definitely a showcase. The curators were always willing to answer any and all questions. I was amazed how friendly and forthcoming they were.

The Hooker Emerald from the Smithsonian was breathtaking. Now that was an emerald we all fell in love with and wanted to add to our collection! However the constant and ever-alert police presence made us aware of the worth of this beautiful gem and we could only stare at it with envy. We did satisfy our desire for fine jewelry by visiting most if not all the



### Educators Enjoy Being 'Rockhounds' ... CONTINUED

dealers looking for that perfect Valentine gift our husbands could bestow upon us. I could not believe how willing the dealers were to let us handle, try on, and answer numerous questions about the stones in each piece. They treated us royally.



Since we are educators, we were interested in the winning science fair projects of last year's Southern Arizona Regional Science and Engineering Fair.

These young students did an outstanding job in their research, their

documentation, and their display of their various projects. From the simplicity and creativity of Ricardo Munoz-Hojyo's project "How to Create a Crystal" to the intricate work of Gordie and Clay Downs' project "Garnets: Magnetic Susceptibility vs. Chemistry." They are all to be congratulated for their work and we salute the Tucson Gem and Mineral Society for sponsoring and giving prizes to the winners of these student efforts.



**Article by:**  
**Carol Trejo**  
**Corresponding Secretary for Upsilon**  
**Chapter, Delta Kappa Gamma**

**Photos by:**  
**Clint Coe, P.R. McClain**

**The Tucson Gem and Mineral Show™**  
**February 14 – 17, 2013**  
**"Fluorite: Colors of the Rainbow"**

2012 Competitive Exhibits ... CONTINUED

## Tucson Gem and Mineral Show™ 2012 Competitive Exhibits

The 58<sup>th</sup> Tucson Gem and Mineral Show™ is now history but its legacy will live on for many years. Besides all of the great Arizona minerals the centennial celebration of Arizona brought out, the competitive exhibits reached a new high, at least for the past decade or so. There were more competitive exhibits (16) plus the two for Best of Theme for a total of 17 cases. No, my math is not bad, I had to place two Junior exhibits in one four foot case. There would have been a couple more if the potential exhibitors had been more timely in mailing in their entry forms. There is always next year.

There were six junior age exhibitors, which cost Rob Lavinsky of Arkenstone \$1200. He has been providing cash prizes for a number of years now to exhibitors under the age of 18. As an incentive, each exhibitor gets \$100 and the top two cases get \$300 and \$500. Rob is really stepping up to encourage new and younger collectors to exhibit and compete.

The quality of the cases was also as high as it has been in a long time. All of the cases scored enough points so only first and second place ribbons were given out, with all cases receiving a blue or red ribbon. This is based on independently judging each case. All of the "Best of" plaques were given out as well. What follows is a list of how everyone did.

### Junior

Jean Luc des Rivieres – Tucson, Arizona  
One Species – Fluorite 2<sup>nd</sup> Place

Clay Downs – Tucson, Arizona  
Open Class 1<sup>st</sup> Place

Gordie Downs – Tucson, Arizona  
Open Class 1<sup>st</sup> Place

Kaleigh Brown – Tucson, Arizona  
Educational – Stamps/Minerals 1<sup>st</sup> Place

Alison Richardson – Phoenix, Arizona  
One Species – Gypsum 1<sup>st</sup> Place and Best Junior

### Junior-Master

Erica Richardson – Phoenix, Arizona  
Thumbnails – Arizona 1<sup>st</sup> Place & Best Junior-Master

### Novice

John Ebner – Tucson, Arizona  
Educational 1<sup>st</sup> Place

John Sulzbach – Redwood City, California  
Self-collected 1<sup>st</sup> Place

Madison Barkley – Tempe, Arizona  
Thumbnails 1<sup>st</sup> Place

Alex Carrington – Everett, Washington  
Open Class 1<sup>st</sup> Place & Best Novice Case

### Advanced

John Schneider – Louisville, Kentucky  
One Locality - Tsumeb 1<sup>st</sup> Place & Best Advanced Case

Brandy Naugle-Zzyzx – Los Angeles, California  
Thumbnails 1<sup>st</sup> Place

### Master

Brett Keller – Angels Camp, California  
Toe-nails (1.5") 1<sup>st</sup> Place and Best in Show

Phil Richardson – Phoenix, Arizona  
Thumbnails – All Pyrite 1<sup>st</sup> Place

Phil Richardson – Phoenix, Arizona  
One Locality – Arizona 2<sup>nd</sup> Place

### Best of Theme

#### **Thumbnail**

Carolyn Manchester – Wauseon, Ohio

#### **Toe-nail**

Les Presmyk – Gilbert, Arizona

#### **Miniature**

Wally Mann – Dallas, Texas

#### **Small Cabinet**

Jim and Gail Spann – Rockwall, Texas

#### **Cabinet**

Les Presmyk – Gilbert, Arizona

#### **Lapidary/Jewelry**

Peter Megaw – Tucson, Arizona

### Special Trophies

#### **Romero**

Scott Rudolph – Ronkonkoma, New York

#### **Bideaux**

Les Presmyk – Gilbert, Arizona

#### **Lidstrom**

John Schneider – Louisville, Kentucky

#### **Desautels**

Al and Sue Liebetau – Powell Butte, Oregon



Les Presymk  
Competitive Exhibits Chair

*Les Presmyk*

## SCIENCE FAIR AFFAIRS

Anna Domitrovic



While the month of March may “come in like a lion and go out like a lamb”, midway through, things “slow down like a sloth” long enough for the annual Southern Arizona Regional Science & Engineering Fair (SARSEF). And, once again, TGMS descended on the TCC, along with a host of other organizations and individuals, to judge the more than 1600 entries at this year’s event.

The TGMS judging team 2012 consisted of team leader yours truly, returning judges Janet Reue and Rick Trapp, and newcomer Dick Morris. It took several hours to single out those projects that needed a second, more serious, look for the much coveted TGMS awards. After thoughtful consideration, we narrowed the field down to one kindergartner, three 4<sup>th</sup> graders and one 6<sup>th</sup> grade project. The four elementary (K-5) awards were \$25 cash, a framed certificate and a gift bag chock full of TGMS and SARSEF “prizes” for each winner. The middle school (6-8) winner got \$50 cash, a framed certificate and the gift bag.



The kindergartner winner was Joshua Thai for “Crystallized Oceans”. Joshua’s efforts were the result of home schooling.

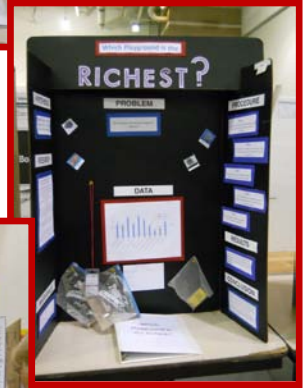
Three 4<sup>th</sup> graders got the nod for the remainder of the elementary school awards. Katherine Schepelmann, of St. Michael’s Parish Day

School, examined minerals at several locations for “Which Playground Is The Richest?”

Daniel Giordano, another home schooler, titled his winning project “Extraction Satisfaction.” And Ryan Pecha figured out “How Old Is My Countertop?” with some pretty sophisticated research, thanks to the UA opening their science labs to him.

Finally, our 6<sup>th</sup> grade middle school award went to Lydia Dipaola for her project, “Crystal Clear.”

We encouraged all of our winners at the award presentations to hold on to their projects so they can show them off, once again, at the 2013 Tucson Gem and Mineral Show™ next February.



Photos:  
Anna Domitrovic,  
P.R. McClain

**The TGMS Nominating Committee has submitted the following names for 2012-2013 TGMS Officers & Directors; voting to be done at the May General Meeting.**

**List of candidates for TGMS Officers:**

<b>President:</b>	<b>Mark Ascher</b>
<b>Vice President:</b>	<b>John Callahan</b>
<b>Treasurer:</b>	<b>Ellen Alexander</b>
<b>Recording Secty.:</b>	<b>Marilyn Reynolds</b>
<b>Membership Secty.:</b>	<b>Alrene Hibben</b>

**List of candidates for TGMS Directors:**

**Anna Domitrovic**  
**Mark Marikos**  
**Bob O'Donnell**

**TGMS FIELD TRIP TO DOBELL RANCH,  
HOLBROOK, ARIZONA, ON MAY 19, 2012**

No restrictions on the number of people that can go, the only cost will be whatever you buy. We will leave from Jim Grey's Petrified Wood rock shop at 8:00 AM (meet at the east end of the parking lot). This is located at the junction of Hwy 77 and Hwy 180, about 5 miles south of Holbrook. You can stay in Holbrook, lots of accommodations, or in Taylor about 30 miles to the South on Hwy 77. Jim Grey's Petrified Wood rock shop is open from 8:00 AM until 6:00 PM. He has a museum (no charge) that Jim loves to show his visitors. As far as tools, just digging stuff, gloves and good shoes, four-wheel drive vehicle not needed.

If you have questions, send an email to trip leader Diane Braswell at [pdbraswell@aol.com](mailto:pdbraswell@aol.com) or call 520-574-1942.

Sign-up sheet will be available at the May 7, 2012 TGMS General Meeting.

**TGMS FIELD TRIP TO TONOPAH, NEVADA  
ON JUNE 9, 2012**

The June Field Trip is to Tonopah, Nevada. We will leave from the Bashas at River Road and La Cholla at 6:00 a.m., Friday, June 8<sup>th</sup>. We have a discount on rooms at the Mizpah Hotel in Tonopah.

On Saturday, June 9<sup>th</sup>, the owner of the Apache Blue Mine, Tony Otterson, wants to meet everyone for breakfast before leading us to his mine about 70 miles north of Tonopah. He may take us to as many as three of his mines until everyone is satisfied with the material they find. The high grade turquoise will be graded by him and sold to you at one half of retail.

On Sunday the 10<sup>th</sup> of June we are touring the Lone Mt. Mine. The cost for the day is \$75.00 with the club paying half. We intend to leave the hotel at 8:00 a.m. The mine is 30 miles from the hotel. Some of us will tour all day; some may leave early for Tucson.

If you have questions, send an email to trip leader Kerry Towe at [kgt3111@aol.com](mailto:kgt3111@aol.com) or call (520) 297-2593.

Sign-up sheet will be available at the May 7, 2012 TGMS General Meeting.

**TGMS FIELD TRIP TO DELTA, UTAH ON  
SEPTEMBER 20, 21, AND 22, 2012**

We're planning a collecting trip to Delta, Utah. Highlight of the trip will be collecting geodes at Shayne Crapo's claim in Dugway, Utah. He will let us collect in his open pit and also bring geodes up for us. He made mention of a five-gallon bucket. Depending on your preferences, we can also collect at Topaz Mountain, at an agate locality, wonder stone, or snowflake obsidian. We might be able to collect at all of these sites, but

FIELDS TRIPS ... CONTINUED

when you sign up, indicate your preferences in case we can't get to all of them.

The fee is \$120 per person, of which TGMS will pay half. We will need a minimum of 15 people and a maximum of 20. You can sign up by bringing a non-refundable \$60 to the May meeting, or by sending it to the TGMS Office.

If you have questions, send an email to trip leader William Hodgson at [wrh@dakotacom.net](mailto:wrh@dakotacom.net) or call 520-575-0731.

**THE 2011-2012 TGMS BOARD IS MAKING A  
RECOMMENDATION TO THE TGMS GENERAL  
MEMBERSHIP FOR A CHANGE IN THE BYLAWS:**

**SECTION XI - ELECTION OF OFFICERS**

**FROM:** B. No officer may hold any one office for more than two consecutive years, except the Treasurer and Membership Secretary, each of whom may hold office indefinitely unless sooner defeated for reelection.

**TO:** B. No officer may hold any one office for more than two consecutive years, except the Treasurer, Membership Secretary, and Recording Secretary, each of whom may hold office indefinitely unless sooner defeated for reelection.

**The Tucson Gem and Mineral Show™  
February 14 – 17, 2013  
“Fluorite: Colors of the Rainbow”**

**COMMUNITY OUTREACH PROGRAM**

April 17, 2012 was “Earth Day” at the Pima Community College Northwest Campus. TGMS President, Diane Braswell, and I participated in what was the first of many “community outreach” programs that our Society will participate in the future. It was a lot of fun talking to the students and other exhibitors. It was an educational experience for everyone we spoke with and for the two of us.

If you are interested in helping our Society with future outreach events or if you know of an event that TGMS might be interested in, please contact Diane Braswell at 520.574.1942, [pdbraswell@aol.com](mailto:pdbraswell@aol.com). Or you can contact me here at the TGMS office, 520.322.5773, [show@tgms.org](mailto:show@tgms.org).

**Pat McClain  
Administrative Manager**

# A Mineralogical "Is To" Challenge

Here is a mind game to challenge your mineral knowledge. This game challenges you to make a connection between two sets of minerals. The hardest part is figuring out the connection in the first set. Once you figure that part out, it will be much easier to fill in the blank in the second set. Here's an example:

Galena is to lead as \_\_\_\_\_ is to iron.

Solution: Galena is an ore of lead. It contains lead and sulfur. Pyrite is the most common mineral that contains iron and sulfur.

Some of these are pretty easy. Some are very hard. You will need a mineral book or the internet for some. Soooooo . . . . . don't hesitate to ask an adult or a friend to do this with you.

You will have a lot of fun together.

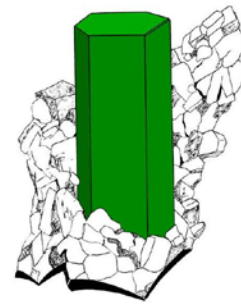


1. Talc is to gypsum **AS** fluorite is to \_\_\_\_\_.
2. Galena is to cubic **AS** calcite is to \_\_\_\_\_.
3. Gypsum is to plaster **AS** \_\_\_\_\_ is to pencil "lead."

4. Amethyst is to Quartz **AS** Emerald is to \_\_\_\_\_.
5. Diopase is to Malachite **AS** Aquamarine is to \_\_\_\_\_.



6. Gold is to metallic **AS** Garnet is to \_\_\_\_\_.
7. Cinnabar is to mercury **AS** \_\_\_\_\_ is to molybdenum.

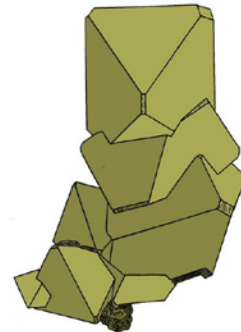


8. Lepidolite is to Muscovite **AS** Elbaite is to \_\_\_\_\_.
9. Calcite is to Rhodochrosite **AS** Fluorite is to \_\_\_\_\_ (Hint: This is for the crystallographers.)

10. Aragonite is to Calcite **AS** Pyrite is to \_\_\_\_\_ (Hint: This one is for the chemists.)



11. Sulfur is to Silver **AS** Galena is to \_\_\_\_\_ (Hint: This one is for the English majors out there!)



12. Pyrope is to Garnet **AS** Muscovite is to \_\_\_\_\_.
13. Hematite is to red **AS** Calcite is to \_\_\_\_\_.
14. Cuprite is to copper as Proustite is to \_\_\_\_\_.

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**A Mineralogical "Is To" Challenge Answers**

Here are the answers you may be looking for...but don't cheat. OK, you can look if you have to.

1. Apatite 2. Hexagonal 3. Graphite 4. Beryl 5. Azurite 6. Vitreous 7. Molybdenite 8. Tourmaline 9. Galena or Pyrite or any other mineral that crystallizes in the cubic system forming cubes. 10. Marcasite (in both comparisons, the minerals have the same chemical formula but have different crystal systems. 11. Gold 12. Mica 13. White (this challenge is about the color of the streak of the minerals named) 14. Silver (cuprite is copper ore; proustite is silver ore).



TGMS General Meetings are open to the general public. All other meetings/events are for TGMS Members only.

## TGMS Calendar

May 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			2	3	4	5
6	7 TGMS General Meeting 7:30 pm	8 TGMS Educational Class 7:00 pm to 8:30 p m	9	10	11	12
13	14 TGMS Micomount Meeting 7:30 pm	15	16	17	18	19 Field Trip to the Dobell Ranch – TGMS Members only
20	21	22	23 TGMS Show Committee Meeting 6:30 pm	24	25	26
27	28	29	30	31		

Unless otherwise stated ... all meetings are held at the Tucson Gem and Mineral Society facility.  
Located at: 3727 E. Blacklidge, Tucson, Arizona 85716

## CALENDAR OF SHOWS

May 11-13 - SANTA ANA, CALIFORNIA: Spring West Coast Gem & Mineral Show; Martin Zinn Expositions; Holiday Inn - Orange County Airport; 2726 S. Grand Ave.; Fri. 10-6, Sat. 10-6, Sun. 10-5; free admission; 80 retail and wholesale dealers; contact Martin Zinn Expositions, PO Box 665, Bernalillo, NM 87004-0665; e-mail: [mzexpos@gmail.com](mailto:mzexpos@gmail.com); Web site: [www.mzexpos.com](http://www.mzexpos.com)

May 14-15 – Mesa, Arizona - The second annual Gem and Mineral Show is being held at the Fountain Hills Community Center this Saturday from 10 am – 5 pm and Sunday from 10 am – 4 pm. There will be fifteen vendors that will be showcasing their gems, minerals, beads, fossils metals, crystals and geodes. Raffle drawings will take place on both days and yes bring the kids, they're gonna get to dig for fossils and pan for gold, no not the real stuff, but it's still going to be a great time for the family. There is a small admission of

\$2.00 for adults and kids under 10 are free. The [Fountain Hills Community Center](#) is located at 13001 N. La Montana Drive in Fountain Hills.

May 22-24 - COLORADO SPRINGS, COLORADO: Annual show; Colorado Springs Mineralogical Society; Western Museum of Mining & Industry; 225 Northgate Blvd.; Fri. 9-4, Sat. 9-4, Sun. 9-3; adults \$5, children \$2; children's area, gold panning demonstrations, lectures; contact Roger Pittman, PO Box 2, Colorado Springs, CO 80901-0002, (719) 683-2603; e-mail: [info@csms.com](mailto:info@csms.com); Web site: [www.csms.us](http://www.csms.us)

May 29/June 1 - FARMINGTON, NEW MEXICO: Annual show; San Juan County Gem & Mineral Club; Farmington Civic Center; 200 W. Arrington; Fri. 10-6, Sat. 10-6, Sun. 10-5; free admission; Wheel of Fortune, silent auction, hourly door prizes, raffle; contact Mickie Calvert, 5986 Hwy. 64, Farmington, NM 87401, (505) 632-8288; e-mail: [mickie2@earthlink.net](mailto:mickie2@earthlink.net).

# ROCK TALK

**FROM:**

**T.G.M.S.  
P.O. BOX 42588  
TUCSON, ARIZONA 85733**



**TO:**

## **Tucson Gem and Mineral Society, Inc.**

**PURPOSE:** To encourage interest and study in geology, mineralogy, lapidary, and allied earth sciences.

**Meetings:** Usually the first Monday of the month, starting at 7:30 p.m., except February (On Monday, week of the Show), June-August (potlucks), and September (second Monday because of the Labor Day holiday.)

## **The Tucson Gem and Mineral Show™:**

The second full weekend in February.

**Affiliations:** American Federation of Mineralogical Societies, Inc. (AFMS), Rocky Mountain Federation of Mineralogical Societies (RMFMS), International Federation of Micromount Societies (IFMS), Metropolitan Tucson Convention & Visitors Bureau (MTCVB), Tucson Metropolitan Chamber of Commerce (TMCC)