



Colorado Mineral Society

Mineral Minutes



Volume 77, Issue 1

January 2013

Changes for the New Year

The Colorado Mineral Society (CMS) has a new Board President and we welcome Bruce Sales to this prestigious post. Current CMS Board positions are listed on Page 2. There are still several committee chairperson positions open, including *Hospitality, Door Prizes/Guests, Exhibits, and the Denver Show Representative*. If you are interested in one of these positions, please contact one of the Board members to learn more about the responsibilities.

Other exciting changes for the New Year include a new newsletter editor and format. In an effort to go green, the editor will be encouraging members to receive this newsletter by email or through the CMS website, which will allow CMS to save paper and stamps. In addition, color photographs can be placed in the newsletter to show off mineral specimens and field trips. Those members and organizations that still want a black and white paper hardcopy of the newsletter can still get one in the mail. All articles, advertisements, and other items for the newsletter should be received by the 24th of the month prior to publication and directed to:

Amber Brenzikofer, Editor
P.O. Box 280755, Lakewood, Colorado 80228-0755
brenzikofer@yahoo.com
phone: 720-480-5234

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President's Message

By Bruce G. Sales

Hello everyone. I hope that every member of the Colorado Mineral Society has had a wonderful Holiday Season. The Holiday party at our December meeting was a great success with lots of great food and beautiful music and gifts (bribes). I wish to extend my thanks and gratitude to all of the members who helped set up before the party and helped clean up after, without your volunteer help we couldn't accomplish half of what we do in twice the amount of time.

I also wish to thank Daryl Lamb for his service as President for the last three years, and I also wish to thank Leslie Osgood for her service for many years (no one will tell me how many years, maybe I shouldn't ask) as the Newsletter Editor. Also I wish to thank Norm Hyndman for serving as our 1st VP for the last year and half.

I wish to extend my thanks and gratitude to Gray Rowe who will be our 1st VP and to Debra Kalscheur who will be our 2nd VP. Gratitude and thanks go out to Amber Brenzikofer who has assumed the role of Newsletter Editor so that Leslie could retire, although Leslie has agreed to open her house for the Board Meeting every month, and has agreed to be the Registrar for the annual silent auction in May. Thanks to Cara Reynolds who has agreed to stay on as a Membership Chairperson. My extreme gratitude goes out to Sandra Gonzales who has served as the Secretary for the Colorado Mineral Society for the last two years and has agreed to do so the upcoming year. Thanks to the Nelson Family for continuing to organize the annual silent auction in May. I wish to extend my gratitude and thanks to Mike and Jennifer Senary for their service as Hospitality Hosts for the Society.

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COLORADO MINERAL SOCIETY OFFICERS
2012-2013

Elected Board Members

President: Bruce G. Sales oscar51686@yahoo.com
First VP-Programs: Gary Rowe
Second VP-Education: Debbie Kalscheur
Secretary: Sandra Gonzales
Treasurer: Eva Siemonsma

Appointed Board Members - Committee Chairpersons

Annual Auction: Richard Nelson Family
Door Prizes-Guests: **OPEN**
Library: Kevin Atwater
Exhibits: **OPEN**
Membership: Cara Reynolds
Field Trip Leader: Gary Rowe
Field Trip Leader Co-Chair: **OPEN**
Nominations: Daryl Lamb
Grab Bags: Dale Block
Editor: Amber Brenzikofer
Historian: Amber Brenzikofer
Youth Activities: Lori Lamb
Hospitality: **OPEN**
Donations: Debbie Kalscheur
Web Master: Julio Edwards
coloradomineralsociety@comcast.net

Representatives (Board Members)

Denver Council Rep: Daryl Lamb 303-993-6685
Denver Show Rep: **OPEN**

COLORADO MINERAL SOCIETY (CMS) was founded in 1936 by a group of distinguished individuals within the mineralogical field. The organization was incorporated as a non-profit, educational organization in 1948. The Society is affiliated with the Colorado Federation of Gem and Mineral Societies, Rocky Mountain Federation of Mineralogical Societies, and the American Federation of Mineralogical Societies, a founding member of each group.

PURPOSE: To promote the study of minerals and other geologic materials, to encourage mineral collecting as a hobby and to conduct public meetings, lectures, and field trips, and to engage in all activities which relate to said purposes of the organization.



MEETINGS: General membership meetings start at 7:30 PM on the first Friday of each month, October through May, at St. Paul's Episcopal Church, at 10th and Garrison in Lakewood, CO. Displays are set up by members about one-half hour before meetings. Specimens may be available for sale and trade. **VISITORS** and **GUESTS** are welcome. **BOARD MEETINGS:** The board members meet once a month to complete the executive business and affairs of the Society. Meetings will start at 7:00 PM usually the third Tuesday of each month. Additional meeting times, if necessary, may be called by the President or any three members of the board and will be announced at the general or board meetings.

MEMBERSHIP: Open to all persons who agree to abide by Society rules and rules of the Federations. Annual fees: \$16.00 for a Family or Newsletter Membership, \$14.00 for a Single Membership, \$12.00 for a Senior Membership (single or family over 65), and \$12.00 for junior members under the age of 18 who are not included in a family. Name badges are available for a one-time fee of \$5.00.

ANNUAL EVENTS: Yearly activities include a silent auction of minerals, fossils, gems, jewelry, equipment and other items related to our interests; participation in the Colorado Contin-tail the largest mineral swap show in Colorado; participation as a member of the Greater Denver Area Gem and Mineral Council in sponsoring the largest gem and mineral show in Colorado; and the Founder's Day dinner.

FIELD TRIPS: The Society sponsors several field trips from Spring through Fall for the purpose of collecting minerals, crystals, and fossils. These trips are one-day, two-day, and occasionally several-day adventures. A field trip guide is published each year in May.

MINERAL MINUTES is the official publication of the COLORADO MINERAL SOCIETY and is published monthly October through May with special editions as needed. All correspondence to Mineral Minutes should be sent to Editor, P.O. Box 280755, Lakewood, Colorado 80228-0755. Any material herein may be reproduced by any club if proper credit is given. Material from many sources is used in the Mineral Minutes. While it is believed that these items are accurate, neither the editor nor the Colorado Mineral Society assumes any liability for their use. Advertiser's claims are their own, and their products are not warranted by the Colorado Mineral Society. Any article written without an author is your editors. If you have anything you want printed in this newsletter, contact the editor by the 24th of the month prior to publication at:

Amber Brenzikofer
brenzikofer@yahoo.com
phone: 720-480-5234



2012 Holiday Party Recap

Submitted by Sherman Marsh

Wow, what a party!! Judging from the noise level there must have been a hundred people present. I tried to count and gave up at 60. We had all the usual great food, great entertainment, great activities, and a visit from Santa. Our entertainment this year was from the Golden High School – 24th Street Singers, directed by Angela Becker, who sang some of the not-so-traditional Christmas carols and who did some outstanding harmonizing. In the food department an incredible selection of hot dishes, salads, veggies, and deserts kept people happily filling plates (plenty for seconds and, in my case, thirds). Activities included the traditional gift exchange and the cake steal. The lucky holder of the numbers drawn got to choose a cake from the table and then hope that another lucky winner didn't "steal" it. Not so much stealing this year as in past years.

Santa made his appearance mid-way through the evening with **Robbie the Elf** and thrilled the younger members. There were two mineral "challenges"; one for the "amateurs" and one for the "experts". Both were very popular and drew large crowds although many who looked at the "expert" challenge declined to enter. Too bad, as it really wasn't that hard (easy for me to say as I was the one who put it out!!). Bruce Geller was the winner of the "expert" challenge, getting 17 out of 23 of the mystery minerals. Gary Rowe came in second and Kevin Atwater was third. Dick Tripp was responsible for the "amateur" challenge and Dan Wray came in first, Marcus Lieberman was second, and Sabra Hoerter third. All winners received prizes. The party ended with the raffle drawings and members were really good about helping to clean up and put things away. All-in-all it was another very successful Christmas party.

Golden High School – 24th Street Singers



Photo Credit: Paul Crowell

Presidents Message (continued)

(We really need for somebody in the society to step up and take on this task, if not we will not have food or beverages during the break between the business portion of our meeting and the featured presentation.)

There are many other people that I have overlooked in extending thanks and gratitude unto, please do not take offense if in my senility I have overlooked you. I did mention bribes above, that was in reference to my bribe of Eva Siemonsma to continue to serve as the Treasurer, for one more year. Believe me when I say that we as a society would grind to a halt very rapidly without the fiscal and operational guidance that Eva provides.

We have many great presentations and displays planned for the 2013 year and Gary Rowe has many great field trips planned also. And having mentioned my senility, I almost forgot that Gary is looking for someone to assist him in planning these great field trips, if you are interested in helping him or are interested in helping with any position that makes this society function, please contact any member of the Board of Directors, we welcome the help.

Our next Society meeting is Friday, January 4th at 7:30 PM at our usual location- St. Paul's Episcopal Church on the southwest corner of Garrison Street and 10th Avenue in Lakewood.

Thank You to those who brought Santa Bag Gifts!!!



Photo Credits: Amber Brenzikofer

What's on Display

That is the question? What is on display this month? As Display Co-Chairman, it is my pleasure to write this column.

Fossil Wood

For the January general meeting, Eva Siemonsma and Bill Harrison are presenting a display of Fossilized Wood. This display is in conjunction with Bill's talk on the various types of fossil wood and the methods in which wood is fossilized.

If you have any ideas for future displays at monthly meetings or for the Denver show, please contact me at oscar51686@yahoo.com

Thanks for all of the volunteer help, without your help this would be a huge job.

Bruce G. Sales
Display Co-Chairman

Donation News

The CMS Board wishes to thank Bob Jordan who went over to Lois Bruner's house and picked up a donation of 10 flats of specimens from her late husband Cedric. They were pyrite specimens.

Jerry Kiefer received flats from the Dam on Runyan collection that he has been bringing to the club. The ones we have received so far are the Yellow Cat Utah specimens.

Thank You!!!!

CMS T-Shirts

If you ordered and have not picked up your CMS t-shirt(s), Eva will have the t-shirts at the January 4th CMS general meeting, so please pick them up.

CUSTOM SAWING
MINERAL SPECIMENS

JEWELRY
CRYSTALS

EGGERS LAPIDARY

JO ANNE & JULIAN CLARK
BARBARA TIHEN • CYNTHIA WEEKS
10 AM - 6 PM
11-5 SUNDAY CLOSED MONDAY

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Richard Owens

Marge Regel

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December 7th Raffle News

The total retail value of December's raffle items were \$190 and brought in \$109 for the science fair endeavors, CMS education, and the purchase of library reading material. The top item, won by *Mike Senary*, was a beautiful septarian nodule (\$24), donated by **Eggers Lapidary**. *Winner?? (Call Eva to record)* won an azurite/malachite specimen (\$23), donated by **Prospector's Choice**. *Shari Deollos*, won the amethyst sphere (\$21), donated by **a generous member - anonymously**. *Amber Brenzikofer*, claimed the garnet specimen (\$15) donated by **Richard Owens**. *Cheryl Harrison*, won the gypsum specimen from porcupine cave (\$13) donated **anonymously**. Last but not least, tying the gypsum specimens, the hematite specimen (\$13), from the **Marge Regel Collection** was won by *Robert Heckman*, a frequent winner --- "see it pay's to buy those tickets" says Bruce.

Thank you to those who donated these great specimens, it is fun to see the happy smiles when their number is called to be a winner!!!

Thanks go to Bill Jones for helping with the raffle.

Congratulations to all our lucky winners!

Submitted by Eva Siemonsma, CMS Raffle Manager

CMS Membership Reminders

A friendly reminder that the CMS annual dues need to be paid as soon as possible if you want your name in the CMS Directory and get a Field Trip Guide at the May meeting. You can pay in two ways:

1. Send a check made out to "Colorado Mineral Society" or "CMS" to P.O. Box 280755, Lakewood, Colorado 80228-0755. Please do not send cash through the mail. A membership card will be mailed back to you.
2. Pay with cash or check at the CMS general meetings the first Friday of each month. Look for the Membership Chairperson to obtain a receipt and membership card.



CMS Membership Fees:

Family: \$16 per year
Single: \$14 per year
Senior (single or family): \$12 per year
Junior: \$12 per year

Also, due to RMFMS insurance and liability purposes, CMS needs to know the month and year of your children's birthdays, so please provide this information when you renew your membership. The children's information will not be published.

Remember you can receive color electronic and/or black and white hardcopies of Mineral Minutes. However, CMS is trying to be "green" and cut back on paper copies, so please indicate if it is OK to send you an electronic copy only. Also, make sure to give us your updated email address so you can continue to get the newsletter and other important CMS updates.



New Members

Here are new CMS members since November 2012:

Stephen and Jami DiRose

Avery and Justin DiRose

Alan and Lynn Hines

Kevins Magouirk

Katherine and Paul Little

Sabrina and Casey Little



"Must you always bring the biggest one you can find?"

via Golden Spike News 10/00



Welcome to Crystallography 101

By Bruce G. Sales



I have been tasked with teaching the basics of crystallography to the members of CMS. For the next year, a portion of the Mineral Minutes will be dedicated to a series of crystallography lessons, which will be followed up at the monthly CMS meeting with a short discussion, teaching aids, and crystal samples. The objective of these short courses will give CMS members tools to help in their identification of specimens they may find in the field. In order to attempt to convey as much knowledge as possible, CMS has purchased three sets of wooden block models. Each of the block models is engraved with the system and the crystallographic axis designation. We will use these block models at the monthly meetings to discuss each of the crystal classes and to help with crystal identification in the field.

Crystallography:

The study of crystallography is a vast subject; it involves the recognition of crystal faces, the angles between these faces, and the forms that any specific mineral may exhibit. The great majority of minerals, when the conditions of formation are favorable, occur in definite and characteristic geometric forms known as crystals. The study of these bodies and the laws that govern their growth, shape, and internal structure is known as crystallography. Crystallography originated as a branch of mineralogy, and has since grown into a complete science that deals with naturally occurring minerals and with crystalline substance that are manmade. Many tools and techniques are used to determine the microscopic and macroscopic characteristics that determine any mineral's crystallographic classification.

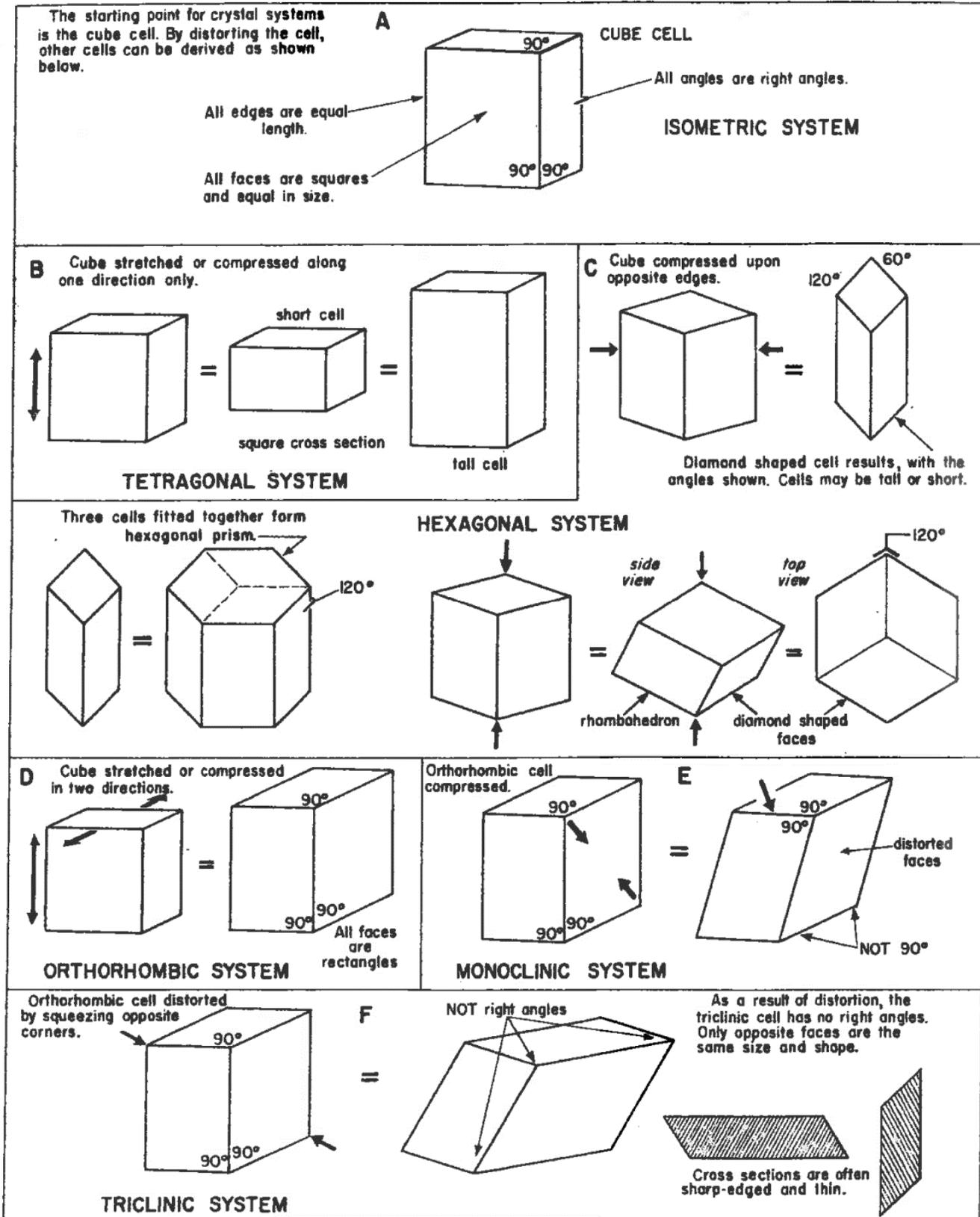
Crystals are divided up into seven crystal systems: isometric, tetragonal, hexagonal, orthorhombic, monoclinic, and triclinic (see diagram on next page). Each month, we will learn about one of the crystal systems. Next month we will start with a discussion of the Isometric System. Look for more information in next month's newsletter, and I will bring a portion of my collection of common minerals that are classified as Isometric Minerals.

By definition: **A crystal is a homogeneous body bounded by smooth plane surfaces that are the external expression of an orderly internal atomic arrangement.** The configuration of the plane surfaces and the angles between them are characteristic of the substance and can be a valuable tool in mineral identification ⁽²⁾.

Crystalline: a general term that denotes the ordered arrangement of atoms in the structure of a solid substance, whereas the term *crystal* refers to the external expression of that order as faces of the crystalline substance ⁽²⁾.

When crystal is used in the broader sense, a crystalline solid with well-formed faces is said to be euhedral; if it has imperfectly developed faces, it is subhedral; and if it is without faces it is anhedral ⁽²⁾.

THE CRYSTAL SYSTEMS



Source: (1)

FIG. 48.

Welcome to Crystallography 101 (continued)

Certain crystalline substances are in such fine subdivisions that the crystalline nature can only be determined with the use of a microscope, these materials are designated by the term microcrystalline. If the crystal aggregate is so finely divided that the individual crystals cannot be resolved with a microscope, yet yield diffraction patterns with x-rays, the term cryptocrystalline is used to describe the material. Most solid substances, both natural and synthetic, are crystalline, a few lack any ordered internal structure. These substances are said to be amorphous, the naturally occurring amorphous substances are designated as mineraloids.

There are three primary methods in which crystals are formed ⁽²⁾:

- 1) Crystallization can form from solution; this is the method in which we are most familiar. If a solution of sodium chloride (salt water) is allowed to evaporate, a point will be reached in which the solution can no longer hold all of the salt in solution and small crystals of salt will precipitate, if no new water is added to the solution, eventually all of the salt will be precipitated as crystals. Another method of crystallization from solution can occur if the temperature and/or pressure of the fluid system are changed.
- 2) Crystallization can form from fusion. A crystal is formed from a fused mass in much the same way as from a solution. The most familiar example of crystallization from fusion is the formation of ice crystals when water freezes. Though it is not intuitive, water is fused ice.
- 3) The third common method of crystallization is from vapor deposition. The most familiar example of this type of crystallization is the formation of snowflakes: air that is saturated with water, when cooled will form ice crystals or snowflakes (no two are identical) directly from the vapor state. Another example is the deposition of sulfur crystals at volcanic fumaroles, the sulfur is crystallized from the cooling of the vapor (at volcanic temperatures to atmospheric temperatures).



References:

⁽¹⁾ Diagrams borrowed from Ed Raines' class on Mineralogy (ca. 2011)

⁽²⁾ Dana's Manual of Mineralogy, Sixteenth Edition, Revised by Cornelius S. Hurlbut, Jr., January, 1952

CMS Board Meeting Notes for December 18, 2012

Attendees: Daryl Lamb, Bruce Sales, Eva Siemonsma, Leslie Osgood, Gary Rowe, Sandra Gonzales, Amber Brenzikofer, and Debbie Kalscheur

Old Business:

2013 Board and Committee Chair status:
Gary Rowe reported we have nominees for all Board positions. We are still looking for volunteers to step up for the following CMS Committees:

Hospitality: Responsible for providing supplies and setting up basic refreshments at each meeting.

Greeter: Primary greeter at general meetings, hands out name tags and door prize tickets.

Field Trip Co-Chair: Assists field trip chair in setting up field trip schedule, identifies new trip locations, arranges permission for field trips, and recruits trip leaders.

Exhibits: Set up at meetings and special events.

Membership Assistant: Someone to assist Cara with CMS membership.

Door Prizes: Pick tickets at general meetings and hand out and record prizes.

CMS Show Committee: Represent CMS at meetings.

Committee positions that are currently filled:

Annual Auction: Richard Nelson Family

Grab Bag: Dale Block

Library: Kevin Atwater

Jr. Rockhounder's Education: Lori Lamb

Historian: Amber Brenzikofer

Membership: Cara Reynolds

Nominations: Daryl Lamb

Editor: Amber Brenzikofer

Donations: Debbie Kalscheur

Webmaster: Julio Edwards

Education for CMS members - Update given by Bruce Sales:

An education program has been approved and will start at the January meeting. Bruce Sales will put a 2 page article about Crystallography in the newsletter so CMS members are ready for the topic of discussion. A 10 minute presentation will be presented at each meeting on the material that was in the newsletter.

Update on Amber getting her Gaming License – Amber has taken the test and is waiting for her gaming license to be issued.

New Business:

Debbie Kalscheur made a proposed for Board Members to have business card to give out to the general public – Debbie will submit a cost proposal.

Amber Brenzikofer proposed to use more color on the newsletter and a new design. Amber has proposed to cut down on purchasing stamps and getting more members to use email or the website as a way to receive their newsletter.

Cara Reynolds reported the CMS membership count:

Status 2012 (63 single, 78 family, 1 junior, 14 senior-single, 11 senior-family)

Status 2013 (9 single, 16 family, 6 senior-single, 1 senior-family)

Status Life Members: 25

Total CMS Members: 224

Leslie Osgood reported that CMS Board Members will be added to the post office box account via a change of authority card that needs to be filled out.

Eva Siemonsma reported:

RMFMS Report – Announce month and year of your child's birthday on membership because of insurance and liability requirements.

Trade name renewed for CMS and Raffle application submitted license received for 2013.

Bruce Sales provided a display cases proposal, which included replacement for plexi-glass = \$386.14
Gary made the motion to the proposal minus the plexi-glass – Debbie 2nd the motion.

The next Board meeting is scheduled for January 15, 2013 and Leslie's house.





Colorado Mineral Society
PO Box 280755
Lakewood, CO 80228

FIRST CLASS MAIL



UPCOMING EVENTS

Regular CMS Meeting - January

Date: January 4, 2013 Time: 7:30pm
Place: St. Paul's Church, Lakewood

Regular CMS Meeting - February

Date: February 1, 2013 Time: 7:30pm
Place: St. Paul's Church, Lakewood

Denver Gem and Mineral Guild Show

Date: February 22-23-24, 2013
Place: Jefferson County Fairgrounds
Time: Fri & Sat 10am - 6pm, Sun 10am-5pm

HAPPY NEW YEAR

**If the Metro Denver area
declares the roads on accident
alert during a snowfall on
meeting night, consider the
CMS general meeting canceled.**

<http://www.coloradomineralsociety.org>