

MARCH-APRIL, 2024

NEWSLETTER OF THE
SOUTH CENTRAL FEDERATION
Of Mineral Societies



Member of: American Federation of Mineral Societies

ON THE COVER

Crystal Springs, Arkansas

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SOUTH CENTRAL FEDERATION OF MINERAL SOCIETIES, INC.

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Executive V-P: Sigrid Stewart

Secretary: Vacant

Treasurer: Henry Rojas

Web Master: Don Shurtz

**Exec. Secretary:
Liz Burford**

**AFMS Endowment Fund Raffle
for SCFMS: Walt Beneze**

**SCFMS Endowment Fund
Treasurer: Walt Beneze**

**Nominating Committee:
Ron Carmen**

Past President: Roger Burford

For more information or to send information to the SCFMS or an officer, please email:

scfmsinformation@gmail.com



PURPOSE

*To promote popular interest and education in the various earth sciences, in particular those hobbies dealing with the art of lapidaries and the science of minerals, fossils, as well as their associated fields.

*To cooperate with educational and scientific institutions or other groups engaged in increasing knowledge in the earth sciences.

*To cooperate with or become members of similar Federations in the United States and elsewhere.

*To assist in the formation of earth sciences societies in localities where public interest justifies their formation.

E-MAIL ADDRESS CORRECTION AND CHANGES
It is each members responsibility to send your email address corrections to the SCFMS Editor:

Susan Burch,
scfmseditor@yahoo.com

NEWSLETTER PUBLISHED BIMONTHLY

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A NOTE FROM —THE EDITOR—

THE FINAL DEADLINE, ETC.



For each newsletter the deadline is the 20th of the month prior to scheduled publication. February-April-June-August-October-December all provide the deadline for the following bi-monthly issue. Although, the Editor may chose to adjust the deadline due to circumstances.

As a reminder! Shop hints and tips that are used in this newsletter have not been evaluated for safety or reliability by myself. Please use caution and safety when trying out any new idea. Please, if you have something urgent give me a call, but send newsletter content via email.

ANNUAL SHOW 2024

Nov. 16-17
Hosted by Dallas GMS

ANNUAL MEETING

Nov. 16, 2024

SCFMS WEB-SITE:
WWW.SCFMS.NET

The SCFMS is a member of the American Federation of Mineral Societies. amfed.org

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By the time you receive this, it should be spring. Spring brings lots of good things like warmer weather and field trips. If you have an outdoor shop, it is also getting warm enough to spend more than a few hours out there with your rocks, slabbing them, tumbling them, making cabochons, faceting them, or just looking and enjoying them. In other words, having fun.

Field trips are fun too. One thing that field trips bring is time in the sun – lots of sun. Many of us being older are suffering the effects of too much sun on our arms and face in our younger years - frequent trips to the Dermatologist to remove small chunks of skin by freezing with liquid nitrogen or, worse yet, with a surgeon's knife. If you are lucky enough not to be experiencing these visits to the Dermatologist, make sure you protect yourself from the sun, primarily its Ultra-violet rays. Sun block or protection by clothing and wide-brim hats helps. The higher the SPF rating of the Sun Block, the better the protection. I always look for at least SPF 50, but SPF 100 is even better when it can be found. If you are taking youngsters on your field trips, make sure they are protected too! Enjoy your field trips and time in the sun, but just be mindful of what you may or may not do today can impact you in your more senior years. I wish I had known more about the effects of the sun on my skin when I was younger!

This year, spring is also bringing the AFMS Convention. This year's AFMS Convention is in Ventura, California. The Ventura Gem and Mineral Society is hosting its show from May 24 to May 26, and they are simultaneously hosting the California Federation of Mineralogical Societies and the American Federation of Mineralogical Societies Conventions. In my last 5 years in the U.S. Navy and the following years as a civilian, I spent many days in the Ventura, Oxnard, Camarillo, and Port Hueneme area. Only once in those years of visiting the area did my business trip correspond to the timeframe of the Ventura Gem and Mineral Society show, but it was a GREAT

show. The immediate areas around Ventura offer a few opportunities for rock hounding (beach agates and stones), but if you can afford the time, it is hard to find a better place than Southern California for finding rocks and minerals. Many of those places are within a few hours' drive from Ventura.

Speaking of Shows and Conventions, the SCFMS Convention is being hosted by the Dallas Gem and Mineral Society from 16 – 17 November 2024 at the Mesquite Convention Center. We have had some disappointing attendance at some of our recent conventions. We really need to be doing better. Each SCFMS Club is required to send their President or a designated delegate to the convention. Each club should find a way to compensate their President or delegate for their travel expenses. The SCFMS compensates its officers and certain required Committee Chairs \$200.00 to help defer travel and lodging costs. I would hope each club will provide similar compensation to their delegate. Of course, any member of a SCFMS club is welcome to attend the SCFMS Convention. Hope to see a crowd there!

Finally, we still need to fill several SCFMS Officer and committee chair positions. We need an SCFMS Secretary. This position takes a little more time than some of the other positions, probably in the neighborhood of 1 - 2 hours per month plus another spurt of activity as we approach the annual convention. The Secretary shall receive all the officer and committee reports, assemble them into a convention packet, and then distribute the packets to the Board of Directors. The Secretary is also in charge of the verification of credentials for those attending the convention. This should amount to 5 – 15 hours of work starting 90 days before the convention. The Secretary will attend the SCFMS Convention. We are also in need of District Vice Presidents for District II (Southeast Texas including Clear Lake G&MS and Houston G&MS) and District V (West Texas including Big Spring Prospector Club, Chihuahuan Desert G&MS, Golden Spread G&MS, Hi-Plains G&MS, Lubbock G&MS, and Midland G&MS). The duties of the District Vice Presidents are to act as a liaison between the district clubs and the federation and to assist new clubs in joining the federation. The district VPs will prepare a report for the SCFMS convention and attend the SCFMS convention. It would be really nice if an officer from clubs in District II and V would step up to fill the open District VP positions.

I hope you enjoy the spring weather. Our winter had one cold snap but was generally mild. I hope the weather is absolutely great for any of your spring activities.



**2024 SCFMS
WEBSITE CONTEST UPDATE
Don Shurtz, SCFMS Website Contest Chair**



*Don Shurtz,
AFMS Endowment
Fund Chair/
SCFMS Website
Contest Chair*

I have been telling you that the 2024 Website Contest is being significantly changed. There will be competitive and non-competitive divisions. The thought process is that some clubs may just want to get feedback on how their website is doing, but feel that their website would not be competitive with other entries. The non-competitive division will be just that – the contest will be examined by experienced judges and feedback provided to the club webmaster on the strengths and weaknesses of their website. Only the webmaster will receive the results. In both divisions, the emphasis will be on how well a requirement or bonus area is documented.

I have been saying for the last year that the contest will be moving to a fixed schedule. The schedule will be the same year after year. I have been saying that the SCFMS deadline will be September 30. As we finally closed in on the implementation, it turned out there needed to be a little time between the closing on September 30 for assigning judges and other administrative matters. With that in mind, and looking at things historically, we have always closed our contest on a Sunday night. In 2024, September 30 is a Monday, so I had to pick either September 29 or 22 as our closing date. I picked September 22 – that will be the official closing date for entries. And speaking of entries, they will now be completed online on the AFMS Website, <https://www.amfed.org/contests/website-contest>. You will see a button for SCFMS that will take you to the entry form. After the entry form is completed, the information will be provided to the Website Contest Chair for that district.

I would recommend that all webmasters review the new documentation for the 2024 website contest. A lot of it will look familiar, but a lot has changed. Please review the documentation and do a self-examination of your website. You need to look beyond the scoresheet. Find details in the instructions and Rules documents. All of these documents are at the same website location as shown above.

I am excited and looking forward to the new 2024 contest and hope you will also be excited!

**AFMS ENDOWMENT FUND
Don Shurtz, AFMS Endowment Fund Chair**

I know that I have written a lot about the AFMS Scholarship Foundation – it is one of my favorite charities. I have also written a little bit about the SCFMS Endowment Fund and the AFMS Endowment Fund.

The SCFMS Endowment fund lives on personal donations. It used to also receive funds from an SCFMS silent auction table that would appear at many of the club shows, particularly the show that hosted the SCFMS convention. However, the table disappeared several years ago, and since then the fund has existed on donations, often memorial donations. It would sure be nice if someone could take on the task of reopening that silent auction at our next convention in Dallas this coming November.

The AFMS Endowment fund lives on donations, but it also holds a raffle at each AFMS Convention. The items to be raffled are regularly featured in the AFMS Newsletter and on the AFMS Website. An article in the last AFMS newsletter indicated they would soon let us know the items to be raffled at the AFMS Convention in Ventura, California this coming May 24 – 26. Many say they don't want to enter because only members of the host federation are winners – they buy their tickets at the Convention. A few years ago, there was a determined effort to ensure one winner from each regional federation. And I know from personal experience that not all the winners come from the federation hosting the show. A few years ago, I won a very nice, and quite expensive, opal pendant through the Raffle. This year I find myself in possession of one hundred (100) tickets for the raffle to be sold in the SCFMS area. The tickets are \$ 5.00 each or 5 tickets for \$20.00. If you want to purchase any of the Raffle Tickets, I need you to contact me ASAP. I would prefer that each club send me the order for the tickets for club members rather than each person contacting me separately, but I will respond in either case. To purchase the tickets, send me a check made out to the AFMS Endowment Fund to Don Shurtz, 4004 Dublin Rd, Allen TX. I will send the tickets back to you and send the drawing coupon to the AFMS. If you have any questions, please contact me at don.shurtz@gmail.com or call/text me at 469-688-2821. If the one hundred tickets sell out (wouldn't that be great!), I am sure I can get more from the AFMS. There will also be a raffle at the 2025 convention, and it would sure be nice if someone would step up and take on the selling of the tickets.

TALC

By Prof. Philip R. Kesten, Ph.D.

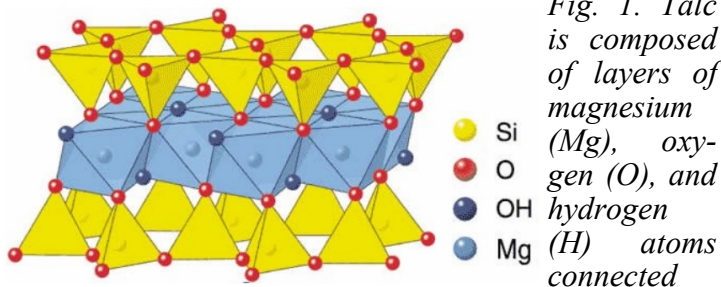
Department of Physics, Santa Clara University

Now leading off, on the Mohs Hardness Scale, is talc. (For you New York Yankees fans, please read the previous sentence in the voice of Bob Sheppard, the Yankees long-time, legendary public address announcer.) Talc is the softest mineral known, right at the base of the Hardness Scale at a hardness value of 1. Soft, yes, but also incredibly versatile. Talc is used in making ceramics and plastics. Talc is an important constituent of paper and cosmetics. And talc—relatively high-grade, relatively pure talc—is finely ground to make talcum powder.

Talc, the mineral, can be a white or light green crystal. Typically, however, a specimen of talc is amorphous. Talc is, essentially, a relatively nondescript chunk of rock. Easy to overlook? Not so!

Talc is a moderately complex molecule, known to chemists as hydrated magnesium silicate. It contains magnesium (Mg) atoms, chemically bonded silicon (Si) atoms and oxygen (O) atoms—these are at the heart of the “magnesium silicate” part of the name. In addition, there are also atoms of hydrogen (H) and oxygen (O) connected to the magnesium silicate; hydrogen and oxygen atoms in talc account for the “hydrated” descriptor. “Hydrated” connotes having or absorbing water - water is H₂O). The chemical formula for the molecules in talc is Mg₃Si₄O₁₀(OH)₂.

But talc is not simply an assembly of Mg, Si, O and H atoms—a crystal of talc is composed of layers (or “sheets”) of Mg, O, and H atoms connected together, and sandwiched between layers of Si and O atoms connected together. (See Fig. 1.) That inner layer of the sandwich is composed of O atoms and OH pairs grouped around a central Mg atom; the Si and O atoms in the surrounding layers form clumps of four-sided pyramids connected together.



<https://www.etf.com/sites/default/files/hai/stories/Talc%20Molecule.jpg>

The sheets of atoms that comprise talc are held together by an interatomic attraction known as the Van der

Waals force. This force is hundreds, to as much as thousands, of times weaker than the other kinds of bonds that hold atoms together to form molecules, and it is this weak bonding between molecular layers in talc that accounts for its softness. (Hooray for the Mohs Hardness Scale!). And because the layer-to-layer bonding is weak, the molecular layers in talc are easily separated; talc can be cleaved into very thin sheets.

This weak inter-layer bonding also allows the layers of molecules in talc to slide easily one relative to the next, making talc an excellent lubricant. And finally, the layer-upon-layer composition of talc gives this mineral its characteristic soapy, almost greasy, feel. One variety of talc is known as soapstone for this reason.

So yes, talc is soft. And because bits of talc can easily slide one against another, talc can be an excellent lubricant, especially in powdered form. But of more interest, perhaps, at least to those who want to make use of the properties of talc, is that talc is relatively inert. The outer sides of the layers that form talc contain no ions, so even in powdered form, talc does not react when in contact with most other substances. Talc is also safe to ingest, and it is also almost completely insoluble in water... and even in weak acids.

So talc is inert, it is safe, and it is insoluble... These properties make talc versatile! In powdered form talc is used, for example, as an anti-caking agent in the production of animal feed. Anti-caking? Adding powdered talc to granulated feed prevents it from forming clumps, making the final product easier to package, transport, and even consume. Talc is also used to coat such diverse food products as chewing gum and cured meats, in order to prevent bits and pieces of these foods from sticking together. And powdered talc is used to stabilize the clumps of bacteria in wastewater. Because talc is inert, this results in no bacterial loss, thereby preserving the value of the treated wastewater—that is, the sewage sludge—as fertilizer.

Where else might you find talc? It and its relative talc (um) powder, is commonly used in cosmetics. Talc is



Talc, Photo via <https://geology.ecu.edu/w/geol1501/mineral/talc/>

Continued from Page 6

often used, for example, in makeup and skin care products. And talc is mild, in terms of interacting with skin, and it keeps skin relatively dry... ideal for making baby powder. Yes, putting some talcum powder on a baby's bottom is great to prevent diaper rash! And because the layers in talc slide against each other smoothly, including powdered talc in cosmetics gives makeup products, such as blush and eye shadow, a certain silkiness. Talc can also provide "beauty creams" with a desirable sheen, and can allow bars of soap to glide more smoothly on your skin.

So yes, our direct contact with talc is likely through it being a component of powders and cosmetics. But the main industrial application of talc is in the production of plastics. Talc also finds its way into the production of ceramics, paint, and paper. Indeed, seventy-five percent of the talc used in the United States goes into these four applications.

Talc serves as a filler in the production of plastics, materials such as polypropylene, polyethylene, and vinyl. Talc makes these materials smooth. Talc can also increase the stiffness of these plastics. In addition, because talc is so soft, machines that process plastics experience less wear and tear when talc is added.

Talc is an important ingredient in creating ceramics. Ceramic tiles and pottery, yes, but also bricks, concrete, and even the porcelain insulators used to support long, high voltage (power) transmission lines. Ceramics are created by heating ("firing") soft clay until it becomes hard. Clay is a natural soil material rich in aluminum and silicon ions bonded together in thin layers, which are then connected by oxygen and hydroxide ions. (Similar to talc, yes?!) Adding talc to clay before it is fired reduces the temperature required to turn the soft clay into a hard ceramic, and it also makes the final product more resistant to cracking should the ambient temperature change.

Adding talc to clay also makes the resulting ceramic material impervious to water. This process, known as "vitrification," makes it possible for ceramic urns to hold liquid, and also prevents bacteria from penetrating into the ceramic material. No bacteria? That is a good thing if you want to use a ceramic urn to store food or water.

Another common application of talc? Talc added to paint. Most paints are suspensions of various minerals in a liquid. The liquid makes the paint easy to apply, but after the paint is applied to a surface and after the liquid evaporates, it is the minerals left behind that account for the color and texture of the painted surface.

Adding a bit of powdered talc to paint helps keep those minerals in suspension when the paint is in liquid form, and helps maintain a uniform distribution of those minerals within the liquid as the paint is



Talcum Powder- Wikipedia

applied to a surface. In this way talc gives a painted surface a smooth, even coloring, and as an added bonus, because powdered talc is typically bright white in color, adding talc to paint brightens the color of the paint.

And finally, there is talc in most paper products. Cellulose fibers, most commonly in the form of a pudding-like pulp made from ground-up wood, are the primary constituents of paper. When talc is added to wood pulp during the process of producing paper, it fills the gaps between the fibers, making the final product smoother and less transparent. Talc also reduces the number of blemishes that would otherwise be introduced in the paper production process. Finally, talc improves how receptive paper is to having ink laid down on it in a printing process.

Talc. Yes, it is soft, amorphous, and nondescript. But talc is a most versatile mineral, so do not overlook it. If you do not have a specimen of talc in your collection, add one!

Via Breccia, 3/24



A FEW TEASERS FROM ROCK & GEM MAGAZINE

Minerals & Metals of the Bible

Minerals and metals of the Bible are referenced more than 1,700 times. It's interesting to consider their contexts in history, geology and Biblical archaeology.

https://www.rockngem.com/minerals-metals-of-the-bible-part-i/?fref=79dac227-70c0-4c67-9bf2-1d8ac3942841&em=c2NmbXNlZGl0b3JAcWVob28uY29t&utm_campaign=RnG+Weekly_March_28_2024



Gemstones of the Bible

What are the gemstones of the Bible? There are general references and 23 specific mentions including 20 mineral gemstones and three from living things like pearls.

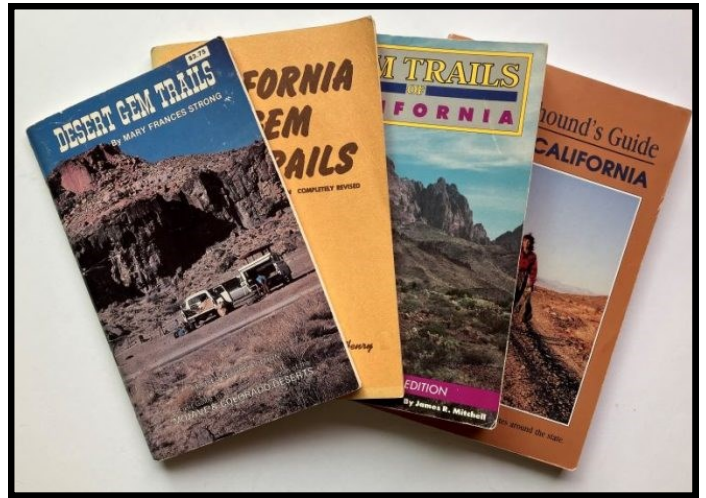
<https://www.rockngem.com/gemstones-of-the-bible/?fref=7abedf23-32bc-418d-a3dc->



Rock Collecting: How to Read a Field Guide

Rock collecting often means reading a field guide to get to a digging spot and identify what you find, but the results can be iffy. Here's how to make the most of your book.

https://www.rockngem.com/rock-collecting-how-to-read-a-field-guide/?fref=8e8e33f7-619a-4f1a-8277-c8a45f39137f&em=c2NmbXNlZGl0b3JAcWVob28uY29t&utm_campaign=RnG+Weekly_March_21_2024



Seraphinite – What to Cut

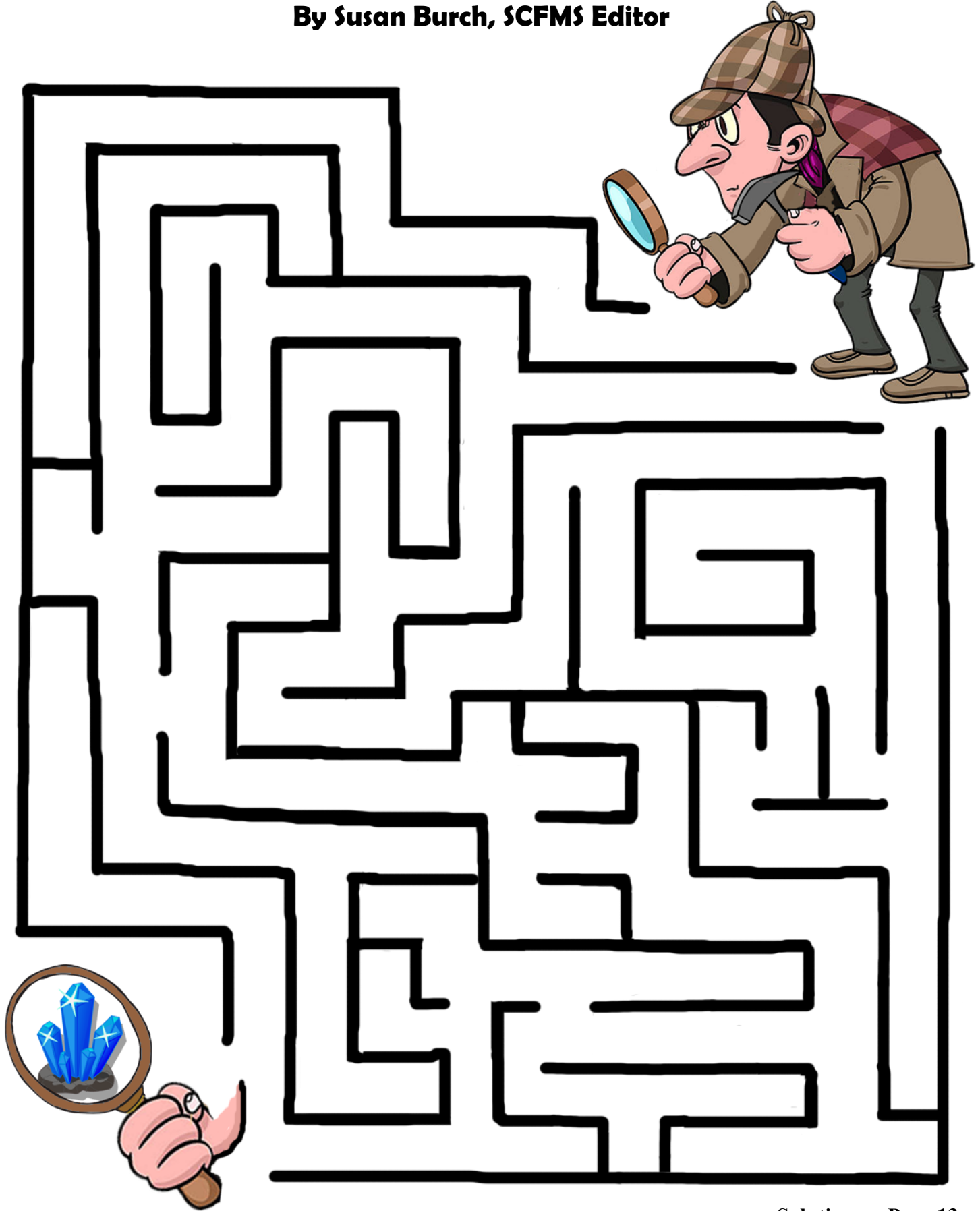
Seraphinite was named after Seraphim, the highest order of angels, because of its shimmery, feather-like appearance. Here's how to make a cabochon with it.

https://www.rockngem.com/seraphinite-what-to-cut/?fref=39ca0332-ee74-449d-86c0-37994a59bb51&em=c2NmbXNlZGl0b3JAcWVob28uY29t&utm_campaign=RnG+Weekly_March_28_2024



FIND THE GEM-MAZE

By Susan Burch, SCFMS Editor

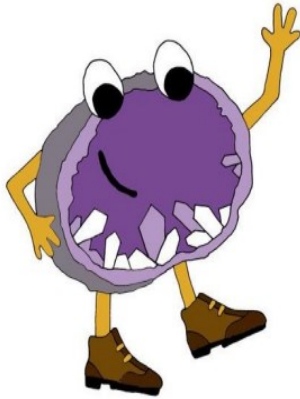


In trying to put together a well rounded issue of the SCFMS Newsletter, I always try to flesh out the pages with a lot of items of interest to Juniors as they are our future in the hobby. So, here you go...S. Burch, Editor

There is a new issue of

CRACK THE NEWS

A newsletter for kids by kids who love rocks, minerals, and fossils



Where George the Geode is introduced as the mascot.

Check it out here:

[Crack the News - 2024-03.pdf](#)

If you are a junior and would like to contribute, please fill out the form here: [Newsletter Submission Form.pdf - Google Drive](#)



QUICK TIPS FOR EDITORS—KISMIF for Kids

Linda Jaeger, RMFMS BEAC

Writing and Finding Articles for Kids If you work with kids you probably know the acronym, “KISMIF.” This stands for “Keep it simple, make it fun.” Whatever type of article you write, remember KISMIF is a good rule of thumb.

Educational activities for kids make wonderful articles. Many activities can be found online, in books from your public library, in books from a bookstore, or by talking with an educator (including scout leaders). If you rewrite an activity you have researched, be sure to list your sources as references. Online you can do a search for “kids geology activities” to get you started. Another good starting place for kids activities is the Juniors and Future Rockhounds of America portion of the AFMS website

<https://www.juniors.amfed.org/>.

If an activity involves using something hot (stove or oven), something sharp (knife), a hammer (use eye protection), or anything else that can be a safety issue, be sure to include safety precautions. You may also want to add the line, “adult help required.”

Paper and pencil activities are also worthwhile. Crossword puzzles, mazes, word searches, dot-to-dot puzzles, and pictures to color can all be educational.

There are online programs that will help you create many of these by simply putting in a list of words and the size of the puzzle you want. The Discovery Channel has a website that includes “Puzzlemaker,” software for creating a variety of puzzles online. That web address is:

<https://puzzlemaker.discoveryeducation.com>

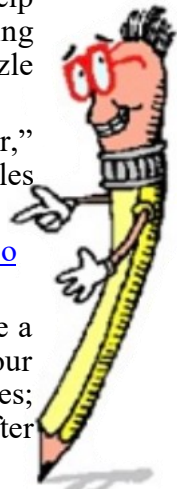
Informational articles can also pique a child’s interest in earth science. Do your research and list your sources as references; someone might want to dig deeper after reading what you’ve written. Keep

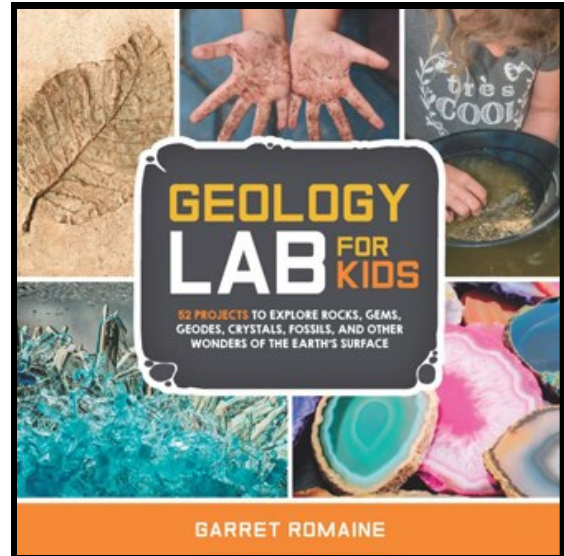
informational articles fairly short and write using words that kids will understand. Keeping the age of your audience in mind will help. Most kids are awed by anything about dinosaurs. They also like to know how things work and where they come from. The Minerals Education Coalition, website at <https://mineralseducationcoalition.org/>, has some excellent materials that you can download from the Internet. Be sure to give credit for items you use as resources!

Sometimes you read an article in a magazine that is just perfect for kids. If you want to use it in your bulletin, write, email or phone the magazine to **get permission to reprint**. Don’t assume they will refuse – many times I have obtained permission to reprint an article at no charge after explaining our newsletter is for educational purposes and that we are a non-profit organization. You will need to include proper credit, a copyright statement, reprinted with permission statement, and anything else the magazine asks. Frequently, they will ask that you send them a copy of the newsletter in which you reprint their article. **If they decline permission, do not use the article!**

One more source of articles is the kids themselves. Sara Murphy, from the McPherson Gem & Mineral Club, has worked with the 4-H Clubs to get kids to write and present some very nice articles for her bulletin. Steven Wade Veatch, an RMFMS author/educator/geologist/scientist and now with MWF, has inspired and taught many kids to write and research. Look him up on Google or check his blogs at <https://www.blogger.com>. Researching and writing articles can be an educational and rewarding experience for young authors. You can also help them go for it!

(Clip art above from Discovery Channel School Image Gallery, 2003. Permission to use for educational, not for sale publications granted.) Updated from my Quick Tips for Editors column in the RMF News, 10/2006. Via RMF News, 3/2024.





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Please, include the link below.

<https://www.amazon.com/Garret-Romaine/e/B0037I87T8>

LAB
22

SMEARS OF PUDDING

Metamorphic rocks often look like swirls. This lab shows one way that might happen.



MATERIALS

- 4 different pudding mixes or 2 vanilla mixes with 4 food coloring choices—do not use instant pudding
- 4 mixing bowls, with pouring spouts if possible
- Large glass baking dish
- Lazy Susan

UNIT 6 MAJOR METAMORPHOSIS

In the labs so far, we have learned about the two main ways that new rocks form, through fire and water. These rocks start out as a volcano or a sediment, but undergo so much “cooking” deep inside the Earth that they change. Sometimes they change in profound and interesting ways.

In deep gold mines around the world, miners battle with the heat that increases as they dig lower and lower. We can only imagine what life is like for a crystal when it’s buried under 20 miles (32 km) of heavy rocks and heated up hotter than a pizza oven. We do know that under those conditions, crystals not only bend, twist, and fold, but they also change their chemistry. In the first labs in this book, we saw how crystals could slowly form under the right conditions of temperature and abundance. Things get even more interesting when you add pressure into the mix.

Continued on Page 12

Continued from Page 11



Safety Tips - Be careful around glass— don't drop it!

PROTOCOL

STEP 1: In the mixing bowls, mix the pudding ingredients according to the package instructions. You can use a mixture of dark chocolate, regular chocolate, butterscotch, and vanilla. If you don't have four packages of pudding, you can make two vanilla mixes and add food coloring to get different colors.

STEP 2: From opposite corners of your dish, quickly pour in two different-colored mixtures. Let them puddle out to halfway across the dish

STEP 3: Right away, add two more colors from the same places you added them before. Pour slowly so the new pudding mix pushes the previous mix across.

STEP 4: Repeat as long as you have pudding mix, but for no more than five minutes, as pudding usually sets up within that time frame. Try to get nice, even lines in your dish that contrast well with the other mixes.

STEP 5: Before the pudding can set up, grab two opposite corners of the dish and give it a quick shake to one side with a jerk to stop it. This is where a lazy Susan rotating table can come in handy.

STEP 6: At some point, the pudding will set up and you won't get much more action. You can use a spoon or stick to make more swirls, but eventually the pudding is ready to eat!



Creative Enrichment

1. What happens when great force is applied suddenly?

THE SCIENCE BEHIND THE FUN

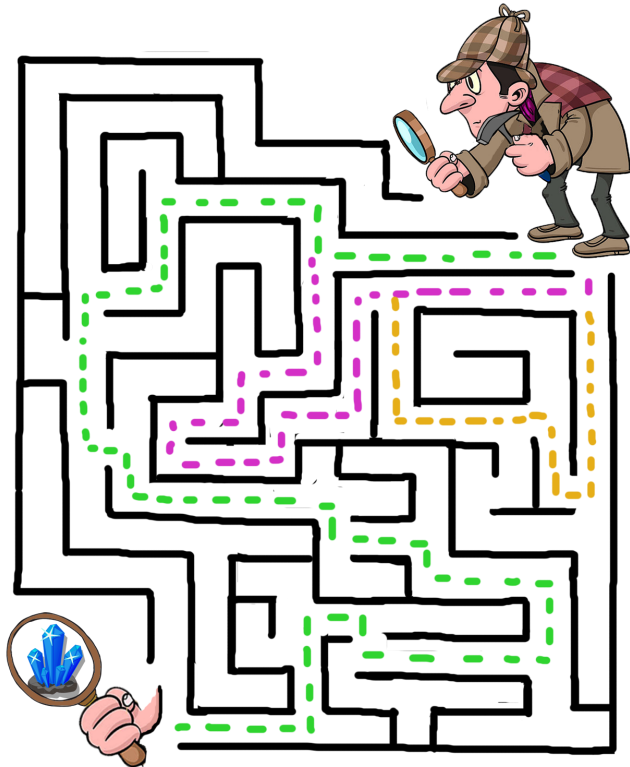
Metamorphic rocks like schist and gneiss often resemble the pudding swirls you just created. Such rocks usually get their lines from the original strata in a sedimentary rock, which has been heated and pressurized by the forces in the Earth's crust. But earthquakes must also play a role, because the swirls and folds come in all shapes and sizes. When you gave your rocks a quick shake, you were doing the job of an earthquake.

If you were to keep going, at some point your pudding swirls would probably start to smear and become unrecognizable. Geologists believe the rocks in the Earth's mantle are very hot and probably act like pudding, or melted plastic, and as heat and pressure continue, the rocks change their appearance completely. In the lab Cocoa Crust, you learned about how heat travels through the mantle in convection currents, which can also cause melted rocks to form swirls. There is a lot we don't know about the rocks in the Earth's mantle, but this is a tasty way to learn!

Continued from Page

FIND THE GEM-MAZE SOLUTION

By Susan Burch, SCFMS Editor



LEGEND	
Shortest Route:	— — —
Alternative Routes:	— — & — —

**CONTRIBUTIONS
WELCOME!**

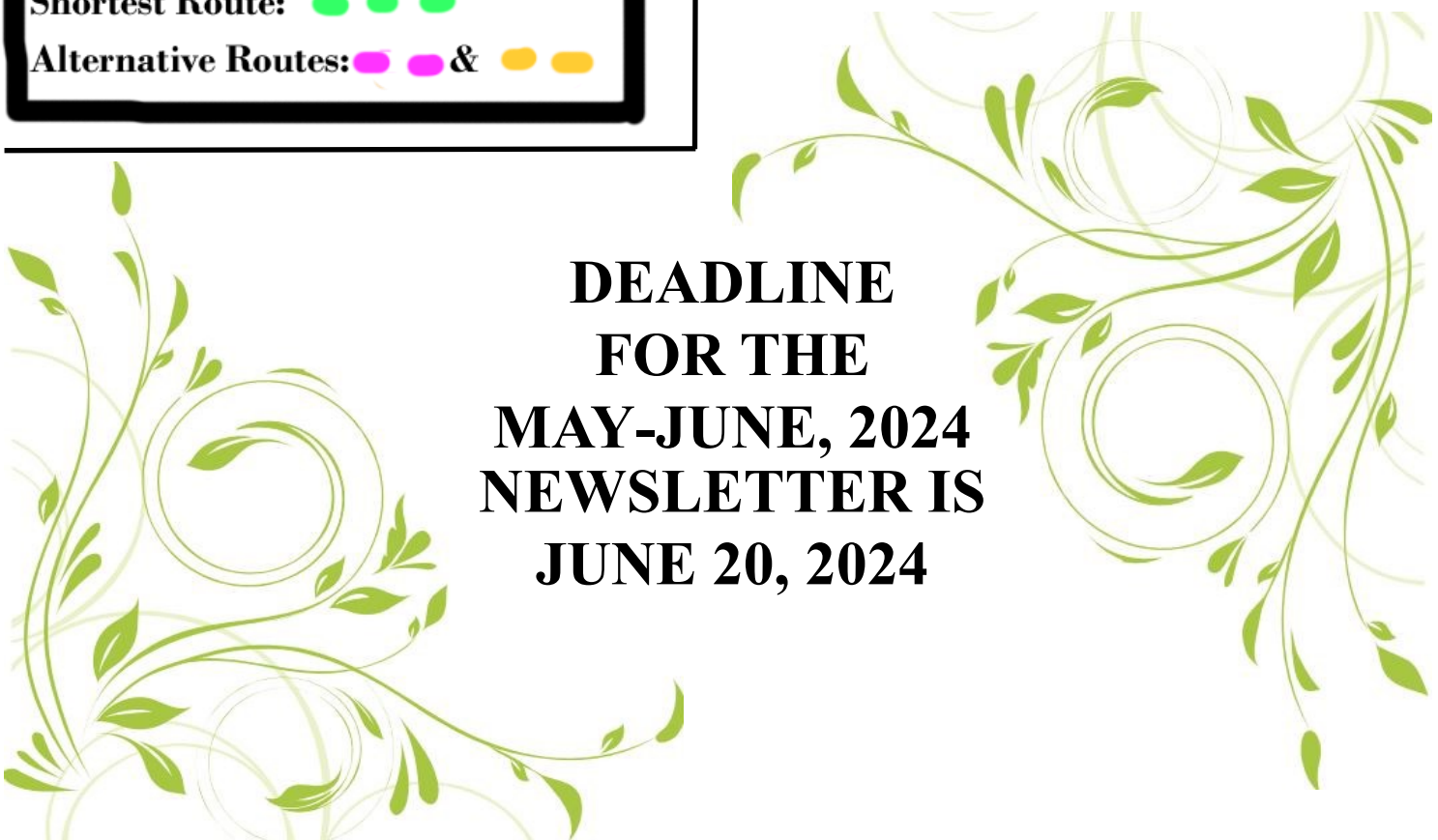
SCFMS exists for the benefit of our member clubs and we are all volunteers. Please consider enriching our club by making a photo, drawing, or written contribution to the newsletter about a geology or earth science related topic.

Pick a topic that interests you and give it a go. Please send it me at scfm-seditor@yahoo.com by the 20th of the month prior to the expected publication date and I would be glad to work with you to finalize your item for this newsletter.

Please, be sure to send me your show flyer at least several months in advance so, I can share it in our newsletter.

Susan Burch, Editor

**DEADLINE
FOR THE
MAY-JUNE, 2024
NEWSLETTER IS
JUNE 20, 2024**



UPCOMING SHOWS 2024

April 6-7, San Antonio, TX, Southwest G&MS, Morris Center,
SWMS.ORG

April 20-21, Alpine, TX, Chihuahuan Desert G&MC, Alpine
Civic Center, Alpine, TX,
<https://www.facebook.com/profile.php?id=100064703045076>.

May 6-7, Waco G&M Club, Waco Convention Center, Waco,
TX, <https://www.facebook.com/WacoGemAndMineralClub>

May 25-26, Fort Worth G&MS, Will Rogers Memorial Center,
Fort Worth, TX www.fortworthgemandmineralclub.org

- ♦ Ref: Rock & Gem Show Dates,
<https://www.rockngem.com/ShowDatesFiles/ShowDatesDisplayAll.php?ShowState=ALL>
- ♦ Ref: SCFMS Website, Local Shows,
www.scfms.net/local_shows.htm



Thank You

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