The CMS Tumbler

June 2025

The monthly newsletter of the Cascade Mineralogical Society, Inc., Kent, Washington

Next Meeting:
June 12, 2025
7:00 p.m.

American Legion Hall
25406 97th Pl S
Kent, WA

The Program is rock identification exercise

The Show & Tell Theme is a rock you want identified

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Club Facebook: https://www.facebook.com/CasMinSoc/
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Show Facebook: https://www.facebook.com/cascadegemandmineralshow
Instagram: https://www.instagram.com/cascaderockclub/
YouTube Channel (Please like and subscribe):
https://www.youtube.com/channel/UCaGIJxaWFAtV_JjgZRm9ESA

This month remember to wish a Happy Birthday to
Michelle Patterson on June 2
Hannah Greaney on June 3
Weston Severns on June 3
Eli Dobner on June 4
Kathryn 'Caly' Jellum on June 4
Noelle Barnes on June 5
Dan Egan on June 6
Jessica Nash on June 6
Leonard Bahr on June 7
Jeffery Glen on June 13
Loren Merriman on June 17
Dominique Zervas on June 19
Becky Patterson on June 21
Kylee Brott on June 22
Ashley Rankin on June 27
Brenda Haworth on June 29
and also remember to wish a Happy Anniversary to
Christina & Russell Lopeman on June 22 (12 years)

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Email preferred.
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2025 CMS Dues are $30 per year per family
Pay online, by mail, or at our meetings.
New mailing address: Cascade Mineralogical Society, c/o Ananda Cooley, 300 Lenora St. - PMB 6145, Seattle, WA 98121
You can pay your dues via credit card!! We now accept all cards through our website or at the meeting.
You can renew your membership or enroll as a new member and pay your dues all in one shot online. You will find it under the “Membership” tab on our website. http://www.cascademineralogicalsociety.org

The object of the Society shall be to stimulate interest in the study of the earth sciences, lapidary arts and related subjects.
This Society is affiliated with the American Lands Access Association; and the Washington State Mineral Council.

Our Club is a Member of these Federations and Associations

ALAA: The American Lands Access Association, Inc. represents the rockhounding interests of 325 gem & mineral clubs/societies in 47 States and the District of Columbia.

The association's purpose is to promote and ensure the rights of amateur fossil and mineral collecting, recreational prospecting, and mining. The use of public and private lands for educational and recreational purposes. They also carry the voice of all amateur collectors and hobbyists to our elected officials, government regulators, and public land managers. http://amlands.org

The front page also has a lot of current news, rockhounding restrictions or lack of, etc. http://amlands.org

ALAA also publishes a quarterly newsletter. To keep up on the news and lobby efforts on our behalf, check out http://amlands.org/

Washington State Mineral Council: The Washington State Mineral Council is dedicated to the location and conservation of rock and mineral sites of interest to the rockhounds of Washington state. https://mineralcouncil.wordpress.com/

You can find local rock and gems shows and planned field trips. It's a great resource if you want to plan on an outing.

Also check out “Misc. News” for all the latest updates on collecting sites around Washington. https://mineralcouncil.wordpress.com/news-updates/

When the weather is good, they have regular monthly field trips. So take advantage of these great outdoor rockhounding adventures! The field trip details are under “Field Trips” on the left side of the side. Check out the link for additional information for the time and place to meet and the field trip leader.

You can find all this information and a whole lot more about what is happening in our state at https://mineralcouncil.wordpress.com/

Rockhounding Code of Ethics

I will respect both private and public property and will do no collecting on privately owned land without permission from the owner.

I will keep informed on all laws, regulations or rules governing collecting on public lands and will observe them.

I will, to the best of my ability, ascertain the boundary lines of property on which I plan to collect.

I will use no firearms or blasting material in collecting areas.

I will cause no willful damage to property of any kind such as fences, signs, buildings, etc.

I will leave all gates as found.

I will build fires only in designated or safe places and will be certain they are completely extinguished before leaving the area.

I will discard no burning material - matches, cigarettes, etc.

I will fill all excavation holes which may be dangerous to livestock.

I will not contaminate wells, creeks, or other water supplies.

I will cause no willful damage to collecting material and will take home only what I can reasonably use.

I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.

I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.

I will cooperate with field-trip leaders and those in designated authority in all collecting areas.

I will report to my club or federation officers, Bureau of Land Management or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.

I will appreciate and protect our heritage of natural resources.

I will observe the "Golden Rule", will use Good Outdoor Manners and will at all times conduct myself in a manner which will add to the stature and Public Image of Rockhounds everywhere.

from the AFMS website

CONTENT DISCLAIMER

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To get information to the Tumbler via the Internet send it to greenrockdraggin@yahoo.com Please put the word "Tumbler" and subject in the Subject Line. The deadline is the 20th of each month.

We Need Your Canceled Postage Stamps

Our club is going to continue to collect canceled postage stamps. Even though we are no longer members of the NFMS, we will continue to collect them and turn them over to the NFMS. They have a stamp company that buys them, and these funds are donated to cancer research. Every year NFMS donates around $2,500.

On letters that you receive, tear the corner with the stamp off. Try to leave about 1/4" of the envelope around the stamp. Be careful not to damage the stamp.

Place the stamps in a plastic baggie and bring them to the meeting. Our member, Mike Blanton, collects the stamps and will turn them over to the NFMS. You can give them to Mike as often as you want throughout the year.

Collecting the stamps is another way we Rockhounds give back to our community.

Don't Forget To Show Your Membership Card At These Retailers

These three retailers are huge supporters of our club. Please seek them out when looking for lapidary items and supplies.

Don't forget to show your membership card and receive a 10% discount on most items!

New for Members Only – New Texting Service

We are busy and often forget that CMS has an upcoming meeting or event. Therefore, we have a texting service to remind members of CMS meetings and events.

Everyone is automatically entered into this service. You can opt out anytime by responding with STOP.

Scan Me

For quick access, you can scan the following codes.

Access CMS Club Instagram page

Access our CMS YouTube channel

Access our CMSclub website for the latest on meetings and club events

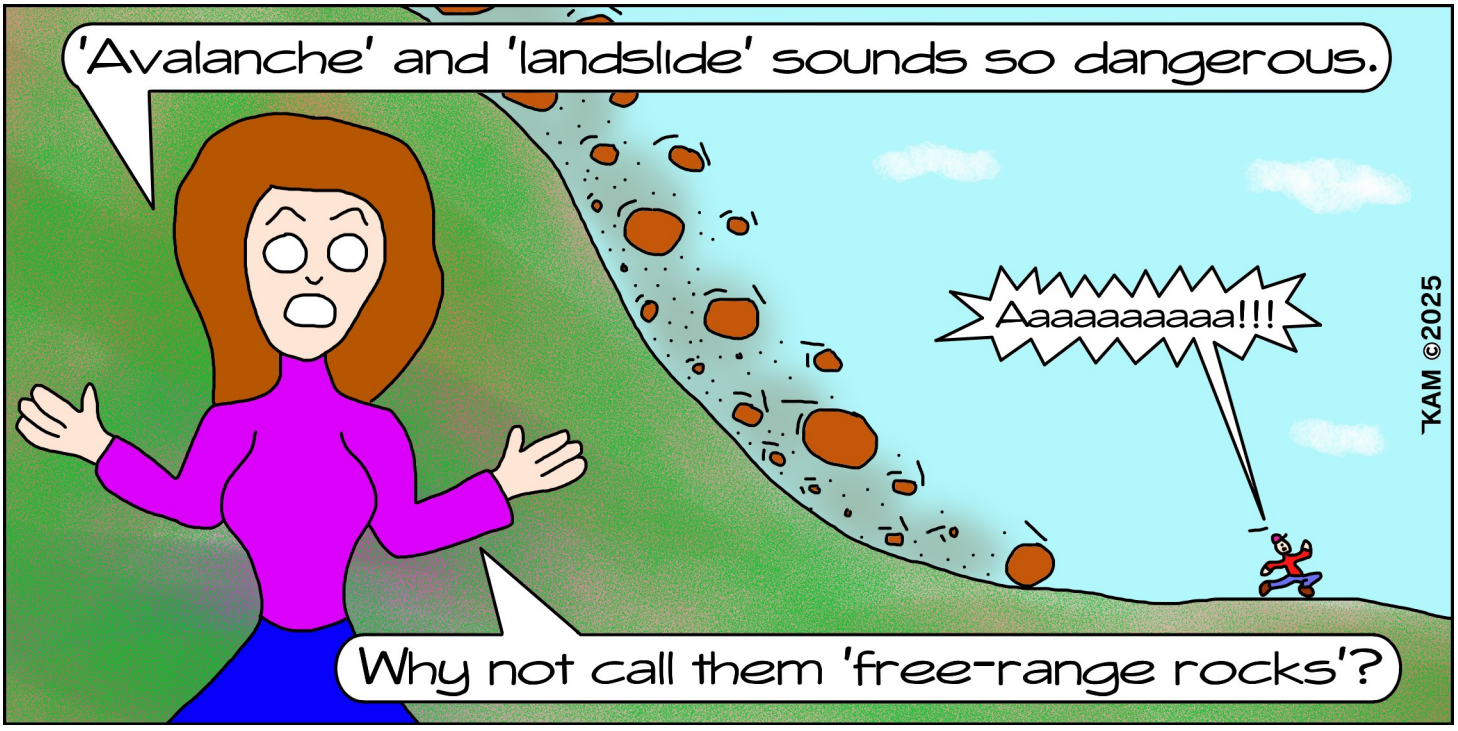
Access CMS Facebook Groups

June

Sun	Mon	Tue	Wed	Thur	Fri	Sat
1	2	3	4	5	6 Puyallup Show	7 Puyallup Show *Little Naches Trip*
8 Puyallup Show	9 Board Meeting 7:00 pm	10	11	12 General Meeting 7:00 pm	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27 **CMS Show Set-up**	28 **CMS Show**
29 **CMS Show**	30	The Cascade Mineralogical Society Show is June 28 & 29 at the Kent Commons				

CMS Show Committee Meeting:…Monday, June 9…….....6:30 pm to 7:00 pm
CMS Board Meeting:……....Monday, June 9…….....7:00 pm to 8:00 pm
CMS General Meeting:……....2nd Thursday, June 12……7:00 pm to 9:00 pm

More Field Trip info can be found on Page 11
More Show info can be found on Page 12



The Tumbler has received One-Time Rights to publish this cartoon

CMS Show & Board Meeting Minutes May 5, 2025

by Pete Williams, 2025 Secretary

Cancelled.

CMS General Meeting Minutes May 8, 2025

by Pete Williams, 2025 Secretary

Called to Order: 7:21

Our June 28-29 Rock and Gem show is sold out. There is 1 vendor on the wait list. The next field trip is May 17 to Biggs/Rufus, Oregon. This is a fee dig for $5/lb. There will be a side trip to the Polka Dot mine. On June 7 the field trip is to Little Naches for thundereggs and leaf fossils.

Our club show is on June 28-29 with setup on the 27th. Club members are asked to volunteer for at least one shift on Saturday or Sunday or to help with setup. We have 2 demonstrators so far. There are cases available for members to show their collections. Contact Roger if interested in a case.

The June program will be on rock identification.

Program: Glaciers by Paul Ahnberg

Meeting adjourned at 8:07 Followed by show and tell and the raffle.

From Atop the Rock Pile

by Kat Koch, 2025 President

Our Gem Show is sold out. Everything is moving along with the show. We will be asking for volunteers at the June meeting plus via email. Please plan on helping out at our show. It takes around 50 people to cover all 3 days.

I have not been out to see how the building of our indoor shop is coming along at Roger's home, but I hear from members that it is really coming along. With some good weather, progress should really move along fast.

If you're a new member, we're thrilled to have you join our fantastic rock club! Your presence at our monthly meetings is highly valued, and we encourage you to take the opportunity to introduce yourself. I look forward to meeting you.

Since our membership continues to grow weekly, I hope more members will attend our monthly meetings. The larger our meeting attendance is each month, the easier it will be to book quality speakers.

When planning your estate, please consider donating to our club. We welcome gifts of any kind, including cash, stock, real estate, or other assets. The club will hold all property and monetary donations in our savings account to acquire or operate an indoor shop.

2025 Meetings

June 12th – Rock Identification Exercise

We will form teams to identify a tray of 8 rocks. Bring your hardness kit, rock ID books, cell phones, or anything else to help your team identify the stones.

Last call for volunteers to help with our Gem Show.

This meeting is also our semi-annual food drive for the Kent Food Bank. Please remember to bring something. The Food Bank has told us they need feminine products and grape or strawberry jelly. People donate loads of peanut butter but never jelly, and they also receive very few feminine product donations.

Show 'n Tell: Bring an item you want to be identified from your collection.

July 10th – Amber – The Most Amazing Discoveries Found in Amber

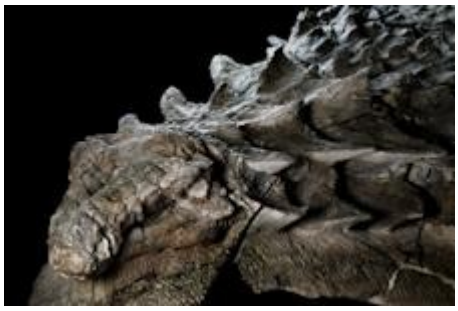
Show 'n Tell: An item that has something trapped inside or a picture rock, thunder egg, or geode that looks like it has an insect, animal, or face inside.

August 14th – Lake Wilderness Arboretum Picnic (Maple Valley) and Club Auction

Potluck on the Park. Bring your favorite potluck dish, rolls, drinks, dessert, etc. Enjoy a peaceful day in the park visiting with friends and having some "rock talk."

Following lunch, we will hold a club auction. It is a great time to pick up some great bargains. Our Young Tumblers can also spend their "rock bucks" on something they want.

Sleeping Dinosaur Fossil by Kat Koch, Cascade Mineralogical Society

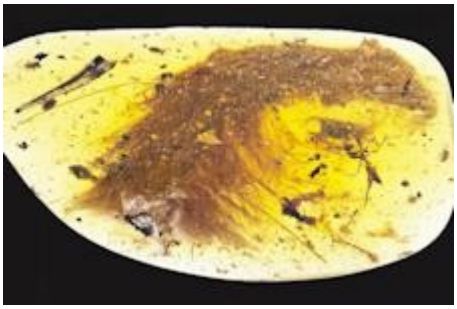


Most fossils we see in museums are skeletons, and the reason is simple: bones don't decompose very quickly, so they have more time to fossilize. Soft tissues like skin, muscle, and organs usually rot away or are eaten by scavengers soon after death, so we don't find those often.

Most of what we know about the skin of ancient animals comes from impressions – indirect imprints left on mud that harden into rock, before the skin decays away.

A "Sleeping" dinosaur fossil has been discovered that is so well preserved that it still sports skin and scales. The skin is preserved in small, three-dimensional fragments, including the tough outer epidermis layer and the rarer, inner dermis layer.

This fossil is the oldest known skin fossil, dating long before the dinosaurs. The samples were found in the Richards Spur cave system, an active quarry in Elgin, Oklahoma. The fossil shows that reptile scales haven't changed much in the last 286 million years. The location of this fossil may have been the key to how the skin was preserved so well for so long.



But under the right circumstances, it can happen. Bury it quickly enough in just the right medium and you can end up with a feathered dinosaur tail preserved in amber, a 133-million-year-old brain pickled in a bog, and a nodosaur still sporting skin and scales that look like it's just taking a nap.

Now, scientists at the University of Toronto have found the oldest fossilized skin known so far, at least 21 million years older than the previous record-holder for any animal. The fossil dates back 286 million years, predating the earliest dinosaurs by at least 40 million years.

The scientific team says the skin belonged to some kind of early reptile, and intriguingly, it looks like it could have been sloughed off a crocodile yesterday. It has a familiar pebbled surface and hinged regions between scales that the scientists liken to snakeskin.

“Animals would have fallen into this cave system during the early Permian and been buried in very fine clay sediments that delayed the decay process,” said Ethan Mooney, first author of the study. “But the kicker is that this cave system was also an active oil seepage site during the Permian, and interactions between hydrocarbons in petroleum and tar are likely what allowed this skin to be preserved.”

The specimen is on display at the Royal Ontario Museum, where further study could reveal more insights into the skin of ancient animals.

Bibliography: New Atlas, Current Biology, Smithsonian Magazine.

The Art of Photographing Beautiful Minerals by Dave Lurie

Photographing minerals is a fascinating and rewarding experience that lets you appreciate the intricate details and vibrant colors of these natural wonders. To capture their true beauty, you need to master a few essential techniques.

Here's a guide to help you take stunning photos of minerals that will make them look like precious gems in your collection.

1. Selecting the Right Equipment

Camera: While smartphones can capture decent images, a DSLR or mirrorless camera with a macro lens will give you the best results. A macro lens allows you to focus on the minute details of the minerals, revealing textures and patterns

that are often invisible to the naked eye.

Tripod: A sturdy tripod is essential for keeping your camera steady, especially when shooting at slow shutter speeds. This helps to avoid camera shake and ensures your images are sharp and clear.

Lighting: Good lighting is crucial for mineral photography. Use a combination of natural light and artificial light sources, such as LED panels or ring lights, to illuminate your subject evenly. Avoid using the camera's built-in flash, as it can create harsh shadows and reflections.

2. Setting Up Your Shot

Background: Choose a simple, uncluttered background that complements the mineral's color and texture. A plain black or white background often works best, as it allows the mineral to stand out. You can also experiment with different colored backgrounds to see what enhances the mineral's appearance.

Positioning: Place the mineral on a stable surface and use a piece of putty or a small stand to keep it in place. Experiment with different angles and perspectives to find the most flattering view of the mineral.

Focus and Depth of Field: Use manual focus to ensure that the most interesting parts of the mineral are sharp. A shallow depth of field (f/2.8 to f/5.6) can create a pleasing bokeh effect, blurring the background and drawing attention to the mineral. However, for larger specimens, a greater depth of field (f/8 to f/16) might be necessary to keep the entire subject in focus.

3. Capturing the Perfect Image

Exposure: Proper exposure is key to capturing the true colors and details of the mineral. Use the camera's histogram to check for overexposed highlights and underexposed shadows. Adjust the exposure settings accordingly to achieve a well-balanced image.

White Balance: Set the white balance manually to match the lighting conditions. This will ensure that the colors of the mineral are accurately represented in the photo.

Bracketing: Take multiple shots at different exposure levels (bracketing) to ensure you have a range of images to choose from. This technique can help you capture the best possible shot, especially when dealing with challenging lighting conditions.

4. Post-Processing

Editing Software: Use photo editing software like Adobe Lightroom or Photoshop to enhance your images. Adjust the brightness, contrast, and saturation to bring out the colors and details of the mineral. Be careful not to overdo it, as this can make the image look unnatural.

Sharpening: Apply a subtle sharpening effect to enhance the mineral's details. Be cautious with this, as excessive sharpening can introduce unwanted artifacts and noise.

Cropping and Composition: Crop your image to remove any distracting elements and improve the composition. Follow the rule of thirds to create a balanced and visually appealing photo. Photographing minerals is an art that requires patience, creativity, and attention to detail. With the right techniques and equipment, you can capture the stunning beauty of these natural treasures and showcase their unique characteristics in your photos. Happy shooting!

via The Quarry, 4/25; from Michigan Mineralogical Society Conglomerate, 3/25

Mineral Sunscreen: Then and Now by Claire Christensen, NSL&MC

For thousands of years, humans have been mining the earth for colorful minerals to paint on our faces and bodies and protect us from the sun. While some have seen continuous use, others have become less common due to modern understanding of mineral toxicities. Antimony and lead, two notoriously dangerous elements, were used for centuries in cosmetics, but have largely fallen out of favor. On the other hand, compounds like zinc oxide and titanium dioxide have remained popular, namely as UV protectants.

The mineral stibnite is the main ore source of antimony. Ancient Egyptians crushed stibnite to use as an ingredient in kohl, which is similar to eyeliner. Stibnite can be found in small hydrothermal deposits throughout much of the world, including Europe, Asia, Africa, and North and South America. It is soft, easily powdered, and oxidizes from gray to black. Historically, kohl was used as protection against eye ailments and the sun. It is still used in parts of Africa, the Middle East, and Asia, though it is no longer made with stibnite. Instead, galena, or lead sulfide, is used.

Galena is the main ore source of lead, and can be smelted in a simple wood fire. Ancient Egyptians used galena as an additional form of eye paint with the benefit of repelling flies and reflecting sun rays. Galena is one of the most common sulfide minerals, a group which also includes cinnabar, orpiment, pyrite, and stibnite. It is also the state mineral of Kansas, Missouri, and Wisconsin. As a solid mineral, galena is mostly nontoxic, but is dangerous when inhaled or swallowed. However, the lead, once smelted out, is highly toxic, as is commonly known today. Interestingly, ancient Greeks and Romans seemed to be at least somewhat aware of lead’s toxicity, and wrote about symptoms of lead poisoning. The Romans used a significant amount of lead, in part because galena also contains silver, sometimes up to 0.5%, for which they were already mining.

Today, the import of kohl is banned in the U.S. because of the risk of lead contamination, rather than antimony. But two other mineral compounds also used for sun protection, zinc oxide and titanium dioxide, are still commonly used in sunscreen and other UV protectants. In fact, they are largely preferred over chemical sunscreens, in part because they appear to do no harm to the body and are safer for coral reefs than common alternatives like oxybenzone.

Zinc oxide occurs naturally as the mineral zincite; however, it is quite rare in crystal form (one notable exception being the Franklin and Sterling Hill mines in New Jersey). The color of the crystal depends on impurities, with a common color being orange-red from manganese. Zinc is generally mined from sphalerite, a zinc sulfide mineral. Once the metallic

zinc is extracted, it can be processed into zinc oxide, which is a white powder. Zinc oxide is the broadest spectrum UVA and UVB absorber approved by the FDA. The classic image of a lifeguard with white sunscreen across their nose is thanks to zinc oxide. However, these days most zinc-based sunscreens use nanoparticles, which appear less white.

Titanium dioxide, also called titanium white, occurs naturally as rutile, anatase, or several other minerals. It can also be produced from ilmenite — the metal titanium is extracted and processed into rutile or anatase crystal, which can then be processed into pigment. In sunscreen, nanoparticles of titanium dioxide are combined with zinc oxide to produce an effective and safe UV absorber. In addition to sunscreen, titanium white is estimated to be used in two thirds of all pigments across every industry.

Throughout all of recorded history, humans have found ways to protect ourselves from the sun, from ancient Egyptian kohl, to modern-day sunscreen. Thankfully, we are now better able to identify when these protectants are perhaps just as damaging as the thing we're trying to avoid. From stibnite and galena to sphalerite and ilmenite, our health is intrinsically intertwined with our earth and its minerals.

Sources: Sphalerite, https://www.mindat.org/min-3727.html
The Trouble with Chemicals in Sunscreen, EWG; https://shorturl.at/y9eDG
Recipes of Ancient Egyptian kohls…, Marabel Riesmeier et al; https://shorturl.at/SeSNM
Galena, Hobart M. King; https://geology.com/minerals/galena.shtml
Kohl, Gina DeLuca; https://fashionhistory.fitnyc.edu/kohl/

from Rocky Trails, 4/25

Off On A Tangent...

Eye black often used in sports, is a grease (bees-wax, paraffin, and carbon soot) or strip applied under the eyes to reduce glare, although studies have not conclusively proven its effectiveness.

MythBusters: doesn't eliminate glare, but does improve an athlete's ability to differentiate between light and dark to better track moving objects in a sunny environment.

from Rocky Trails, 4/25

Fun Facts About Rocks and Minerals

What facts about rocks do you know? Even though rocks and minerals are abundantly available, many people do not take an interest in them, yet there is a lot to learn about them. Moreover, they are one of the most utilized natural resources. Here goes!

The major construction material of the Pyramid of Giza in Egypt is limestone, a sedimentary rock.

Electronics such as radios and watches are made using quartz. Quartz maintains an accurate frequency standard, making it desirable for use in electronics.

Sand is one of the raw materials used in making glass. It is combined with other materials, heated at high temperatures, and forms glass when it cools.

Gold, one of the most precious metals in the world, is underexploited. It is estimated that 80% of gold has not been discovered. Minerals are pure inorganic substances, and that makes pure metals to be minerals. The most expensive mineral is Jadeite. One carat of mineral can fetch up to $3 million.

The Sandstone in the Southern Alps-Of New Zealand is the fastest eroding rock. It erodes at the rate of 2.5 millimeters per year.

Painite is the rarest mineral on earth. It was discovered in 1951,and there only two dozen of the mineral. Rocks can be used to estimate how old the earth is. Scientists have estimated that the earth could be 4.54 billion years old.

Pumice is the lightest rock on earth. Due to the rock's porous structure, it floats on water.

Shale is the most abundant sedimentary rock. It is about 70% of sedimentary rocks on earth. Rocks form some breathtaking landmarks on earth. Some of the notable ones include Balancing Rock (Canada), Old Harry Rocks (Cyprus), Aphrodite's Rocks (England), Uluru aka Ayers Rock (Australia), and Horseshoe Bend (Arizona, USA).

The hardness of a mineral is measured using the Mohs mineral hardness scale. The device was invented by German mineralogist Freidrich Mohs. Humans consider gemstones highly valuable due to their scarcity, beauty, and durability. There are about 100 minerals from rocks are used to make some of the things you use at home. For instance, toothpaste, soap, battery, and some makeups are made from rock minerals. A gemstone's weight is measured in carats. One carat is approximately 0.2 grams.

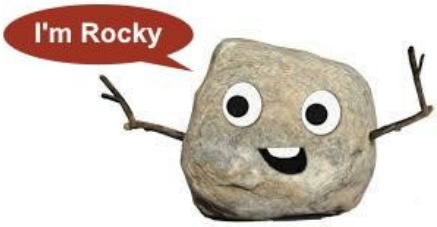
There are three types of rocks, sedimentary, metamorphic, and igneous. Rocks are made up of minerals, while minerals are made up of chemicals found in the earth. Magma is a molten rock below the earth's surface. It becomes lava when it comes to the earth's surface and when it cools, it forms rocks. Rocks are formed from volcanic activities, deposition of sediments, and subjection to mechanical force or heating.

via The Quarry, 5/25; via The Rockpile, 5/25; from the Michigan Gem News, 5/23

The saber-tooth cat was believed to stab its long teeth into prey, but some think this action would damage, or break, the teeth and that it was more likely they used these teeth to slash instead of stab.

Nature beat Star Trek in creating transparent aluminum, it's called corundum, or rubies and sapphires.

Young Tumblers News



Rock Bucks

Just a reminder that all Young Tumblers under 15 can easily earn "Rock Bucks."

Earn $3 "Rock Bucks" to attend a meeting.

You can earn an additional $5 in "Rock Bucks" if you bring something for Show 'n Tell and tell us about your item.

The "Rock Bucks" can be spent like real money at our meetings or club auctions.

You can save your "Rock Bucks" during the year and spend them just like cash on auction items you would like, or you can buy raffle tickets at our monthly meeting.

Join us at our meetings and build your rock-buying piggy bank!

Dancing Dinosaur Tracks? by Keith Alan Morgan

Scientists in Colorado have found what seems to be evidence of dinosaurs dancing to attract mates. The 100 million year-old tracks show evidence of scraping the ground and stomping in place similar to modern bird dance displays. Some have suggested these tracks might be evidence of digging for water or making a nest, although others point out that the general environment of the area at the time was lush and finding water shouldn't have been a problem, and there is no evidence of eggshells which you would expect in a nesting site, so the possibility of a mating dance display seems likely.

Some might wonder why more evidence of dancing fossils haven't been found before this, but most dinosaur tracks are made in muddy or soft ground which is not the sort of ground one would want to dance on. Slipping and falling doesn't usually impress potential mates, so it's more likely that dancing displays would be done on harder ground where fossilization would be more difficult.

While it's very difficult to link fossil footprints to specific dinosaurs the size of the tracks might be of *Acrocanthosaurus atokensis*, a 7 ton therapod that has been found in the area.

What did the dinosaur use to cut wood?

A dino-saw.

How do geologists like to relax?
In rocking chairs, of course.
from Crack the News, 3/25

From the Lips of Grandchildren

When my grandson Billy and I entered our vacation cabin, we kept the lights off until we were inside to keep from attracting pesky insects. Still, a few fireflies followed us in. Noticing them before I did, Billy whispered, "It's no use, Grandpa, the mosquitoes are coming after us with flashlights."

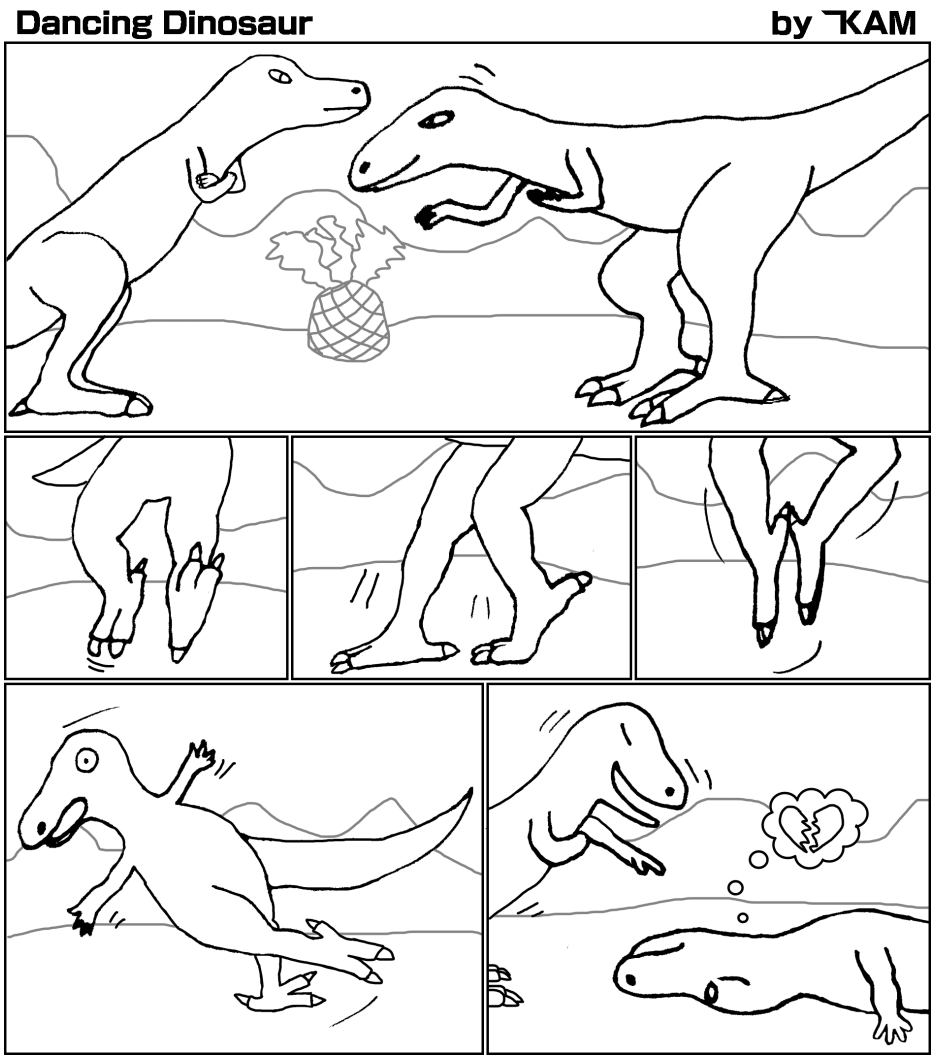
via The Hard Rock News, 6/25; via Carney Hound 5/08; from Clackamette Gem, 4/08

Giant Shark vs. Mastodon?

Bones of a shovel-jawed mastodon were found at the site of a megalodon kill site with megalodon teeth marks in some of the mastodon bones.

Either the mastodon was swimming in water deep enough for a megalodon to swim in, or a dead mastodon had been washed out into deep water where the megalodon had scavenged the corpse.

Not a normal meal for a shark.



Field Trips

The club or clubs sponsoring the field trips are shown in italics. When known I have listed a phone number and contact person for each sponsoring club below the listed trips. If you are not a member of the sponsoring club, you should phone and ask permission to go on their field trip.

Some information from the Washington State Mineral Council webpage (https://mineralcouncil.wordpress.com).

June 7 *Cascade Mineralogical Society* - **Little Naches** - Thundereggs, Lily Pad Jasper, Leaf Fossils.
Difficulty Rating 3. First site to thundereggs is a 1/2 mile hike with some elevation gain. This is a dig site. Second site for Lily Pad jasper is next to the road. Third site is a mudstone formation next to the road where leaf fossils are found.
Roger Danneman roger.danneman@gmail.com; 425-757-3506 (texts ok)

June 21 *Washington State Mineral Council* - **Saddle Mountain** - Petrified wood & opal - Meet before 9 am at Harvest Foods, Mattawa - Bring digging & light hard rock tools or do surface picking

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Upcoming CMS Field Trip by Roger Danneman

Our next outing is on Sat. June 7th to Little Naches for Thunder Eggs, Lilypad Jasper, and Leaf Fossils. Chinook Pass opened May 23rd.

Our meeting spot is on FR19 next to the Little Naches Campground at 10:00 AM. Just park on the side of the road. They have pit toilets up in the campground. We'll plan to leave from there about 10:15. Text me if you're running late, or if you miss the group, read below for more directions.

The weather forecast looks to be dry with temperatures in the upper 60's. The Thunder Egg dig site involves a ~1/2 mile hike with moderate elevation gain, but the other two sites are next to the road. Beautiful views and scenery on the drive over as well as at the thunderegg ridge.

From Renton to FR19 is ~116 miles, between (milepost) MP91 and MP92 on SR 410. (For reference, the little town of Naches is another ~7 miles east on SR 410.)

From Enumclaw, drive on SR 410 over Chinook Pass to FR19 (Forest Road 19), turn left, and park on the side of FR19 where there's a campground and toilets. This is about a 2 1/2 hour drive from the Renton/Kent area.

From the meeting spot, we'll head up FR19 for 1.6 miles, turn right on FR1901 for about 4.4 miles and park. The hike to the thunderegg dig spot is ~1/2 mile.

Probably spend 2 hours digging for thundereggs, and then head back to the cars where we'll drive on to the next 2 sites. It will be a full day. Pack a lunch and bring extra drinking water.

Please let me know if you plan to attend.

A Good Idea Built to Last — The Gem Scoop by Jennifer Haley, AFMS Historian

In April 1961, Ernest Estwing of the Estwing Mfg. Co. of Rockford, Illinois, makers of World-Famous Rock Picks and Sportsman's Axes, introduced his invention called the Gem Scoop. This same scoop is still sold today. Back in the day it sold for only $7.50. Today, the same scoop or updated version sells for up to $65!

What is fun to note, is the thought that went into creating the actual scoop so many of us have carried with us. The idea for it came from three rockhounding friends from different parts of the country who each wished for a particular type of tool to assist them on field trips.

One woman friend from Arizona wished for a tool to use for chasing snakes away while collecting and for grabbing specimens from under prickly cholla cactus and other precarious spots. An Idaho friend wished for a good climber's tool. Another friend wished for a scoop that would help him get specimens out of the water in Lake Superior. All three friends thought a cane type tool would be very effective for what they needed.

After listening to his friends, Ernest spent the winter of that same year inventing and manufacturing the scoop. It was created to be the ideal tool collectors in every region of the country would want to have. The Gem Scoop was and is an ideal tool for its many uses. Skin-divers and beachcombers can use it to explore rocks, shells, sea glass and clams. You can rake and pick up things without hurting your back, and it makes a good hiking cane up and down slopes while collecting. My guess is on a camping trip you could also use it as a handy back scratcher.

The original tool was 36" long, which you can buy new today. You can also buy the same size that comes in a more compact design, which folds up for easier traveling. There's a 42" version in either a solid cane style or as a folding type. Prospecting and lapidary supply companies sell the scoop either under the original name, Gem Scoop, or as Treasure Scoop.

from AFMS Newsletter, 2/25

When digging holes for rocks remember to break down the edges of the holes when you've finished so animals, or people, don't walk right up to the edge and fall in when the edge breaks down under their weight.

Despite similar looking skeletons, genetic testing shows that ancient dire wolves were more closely related to hyenas than to true wolves.

Iron Sand by Paolo Sanchez, Pasadena Lapidary Society

One day, when I was at the beach, I coincidentally had a magnet with me. But what happened was that I accidentally dropped it into the sand. I thought that the magnet would look and stay the same when I was about to pick it up. But once I did, the whole magnet was covered in a very fine, black, sand that was attracted to it. Later on, I discovered that this strange material was called iron sand.

Iron sand is named for its large amount of iron that composes most of the sand. But it is also called black sand or iron filings. Due to the heavy concentrations of iron in the sand, it can be easily picked up by a magnet. This sand mostly contains the mineral magnetite yet it can contain hematite and other iron ore minerals, which makes it easily magnetized. It can also contain different elements like titanium, vanadium, manganese, calcium, and sometimes precious metals, like gold and platinum. It is extremely common, and can be found all over the world, especially on the beaches and shores of all continents, or anywhere where there is fine sand made of iron-rich rock.

The formation of iron sand, like all other sands in the world, is actually quite simple. This sand originates as iron ore or (very rarely) from iron meteorites or space dust. After many years of erosion and weathering, the parent rock crumbles and weathering brings the particles of iron in the rock down to fine particles. Then, the newly-formed iron sand gets carried away, and it gets deposited in places where most sands would deposit, like in places where a river merges with the sea. But since this sand is heavier than most sands, it sinks to the bottom, or it just gets trapped in rock crevices, like gold. That is why many gold prospectors find this sand in the bottom of their gold pans.

But you do not need a gold pan to find iron sand. All you need is a simple magnet and a good location to find the sand - like a sandy beach or a river bank. In some countries, like New Zealand, large magnets pull tons of iron sand from beaches to be refined to make steel. Even though iron sand doesn't really have a high value to it, it is still a really amusing object to play with when it is magnetized.

via CMS Tumbler, 8/15; from Rockhound Ramblings, 7/15

Moolooite by Julia Allande

Sometimes we encounter a name or a specimen that is so totally Out-Of-The Ordinary that we cannot help but investigate further and then share what we have learned with others! MOOLOOITE who has ever heard of it? Not many, I guarantee! No, it is not a misspelling of Mookaite, which is a jasper found in Western Australia. Moolooite is a copper oxalate, Cu(C204)-nH20 from Mooloo Downs Station, Australia (of course!). The stuff is dull, waxy, translucent, turquoise-green or blue to green, of the, orthorhombic system. Surprisingly, it leaves a blue-green streak. It is found as "micro-concretionary" crusts and powders in cracks and solution cavities.

The NEATEST thing about it, I think, is that it may be a bio-mineral formed by the action of certain lichens growing on cupriferous (copper-iron) rocks. These lichens act upon the bird guano and the weathering rocks beneath them, creating the resulting Moolooite.

Don't bother to try to obtain any specimens, however; it is so scare that the type material is held at the Government Chemical Laboratories in Perth, Australia.

from AFMS Newsletter 5/23

Shows

June 6 - 8: Friday 12 pm — 5 pm; Saturday & Sunday 10 am — 5 pm
Puyallup Valley Gem and Mineral Club, *Valley of the Gems*
Swiss Park
9205 198th Ave. E.
Bonney Lake, WA

June 13 - 15: Friday 10 am — 5 pm; Saturday 9 am — 5 pm; Sunday 10 am — 4 pm
Lower Umpqua Gem & Lapidary Society, *Annual Rock and Gem Show*
Reedsport Community Building
451 Winchester Avenue
Reedsport Oregon

June 28 & 29: Saturday & Sunday 10 am - 5 pm
Cascade Mineralogical Society, *Annual Show*
Kent Commons
525 4th Ave N
Kent, WA