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Postal, or Email, Exchange Bulletins are welcome. Email preferred. greenrockdraggin@yahoo.com Clark Historian

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2019 Committee Chairs

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2019 CMS Dues are \$25 per year per family

Pay online, by mail, or at our meetings.

Mailing Address: Charles Benedict, 25838 W Lk Wilderness Dr SE, Maple Valley WA 98038

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 Federation of Mineralogical Societies; the Northwest Federation of Mineralogical Societies; and the Washington State Mineral Council.

Every member of the club should be receiving a copy of the Northwest Newsletter. If you are not receiving a copy contact Mike Blanton in person or by telephone at (425) 271-8757 or by computer at **mblanton41@hotmail.com**

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

The Cascade Mineralogical Society Facebook page is https://www.facebook.com/CasMinSoc/

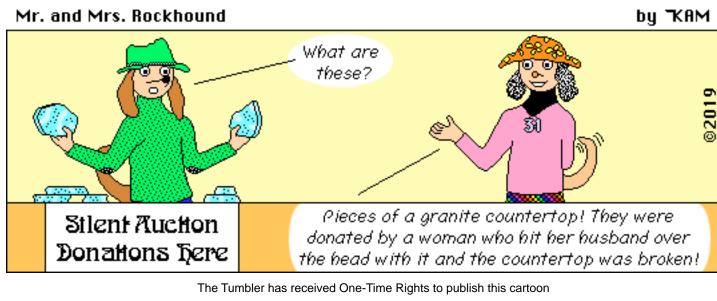
The Cascade Gem & Mineral Show Facebook page is https://www.facebook.com/cascadegemandmineralshow/

The Tu	mbler		Page 3			May 2019
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SUN	MON	TUE	WED	THUR	FRI	SAT
×	×	\$ •	1	2	3	4 Everett Show
5 Everett Show	Show Meeting 6 6:30 PM Board 7 PM	7	8	General Meeting 7 PM	10	11
12	13	14	15		17	18
19	20	21	22	23	24	25 <u>Darrington</u> <u>Club Trip</u>
26	27	28	29	30	31 Puyallup Club Show	*

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

Lapidary Class Hours:.....By appointment, call to set a time & day for your lesson (425) 226-3154 Lapidary Shop Hours:.....Most Tuesdays......2:00 pm to 5:00 p, call ahead (425) 226-3154 Lapidary Shop Hours:.....3rd Saturday.....by appointment only (call a few days ahead to set time)

More <u>Field Trip</u> info can be found on Page 11 More *Show* info can be found on Page 12



by Pete Williams, 2019 Secretary

CMS Show & Board Meeting Minutes April 8, 2019

Members Attending President Kat Koch Secretary Pete Williams Mineral Council Jackie Pattie Show Chair Mark Hohn Director Roger Pullen

Vice President Merriann Fu Federation Mike Blanton Past President Bob Pattie Director Roger Danneman Director Rich Russell

CMS Show Committee:

Meeting called to order at 6:42

There are 47 booths that have been sold to date with 18 remaining. All booths sold have been by invitation only. We may open it up to all vendors in May or June.

Mark is exploring new activities for the kid's area. This may involve spending a few hundred dollars to have a supplier run the activity.

Board Meeting:

Meeting called to order at 7:06

The membership application and release and indemnity form has been revised to include an opt out option for members that do not want their names and addresses included in the NFMS directory. All members will be requested to fill out the form. They will get a free club pen upon completion. A motion was made and approved to purchase 260 pens for the club. Potential uses could be to give to vendors, and show volunteers as well members.

The May meeting program may be on field trips. A future meeting program may be on lab-created diamonds and gemstones. Senate bill 47 regarding the management and conservation of federal lands has been signed by the president. The bill protects an additional 340K acres in Washington. Also 4th graders and their parents will get a free pass to federal lands.

The American Lands Access Association (ALAA), the lobbying organization for rockhounds, is looking for more clubs and individuals to join them. A motion was made and approved for CMS to join.

Meeting adjourned at 7:38.

Young Richard's Almanac by Dick Morgan



39 years ago Mt. St. Helens blew its top, not that it was wholly a surprise. I was supposed to go fishing on the Touttle River that day, but the guy I was going with had to work. But some of the people we had met when we fished that river were fishing, two of them on one side of the river and the other guy on the other side. When the mountain blew the two guys hollered for the other guy to get out of there and drive away from the mountain, but he decided to have a cup of coffee and spelt his doom.

It appears that the smallest activity can control our destiny, such as working overtime, driving fast, or having a cup of coffee.

Mt. St. Helens Musings by Dick Morgan

Time does fly as long as you keep an active life, as it was 39 years ago that Mount St. Helens blew its top. It was not unexpected, but still many people were endangered when it did blow as they entered the area of destruction. The ash from the mountain covered a much larger area than was expected, causing problems like closing roads in southwest Washington and eastern Washington. Some people visiting eastern Washington were unable to get home for over a week.

Closer to the mountain several people died, either arrogance or failure to believe the government warnings.

When it let loose a lake added to the river and in the flood several houses were washed away. Logging business was dealt a disastrous blow and Morgan Park was wiped out. The area was a total disruption of the local countryside.

As time went by nature started rearranging the landscape so that with our normal rainfall green started popping up all over the grey ash covered area. As the years go by it becomes harder and harder to realize the gouge that was put in the earth, except for the missing part of the mountain.

A rockhound note would be that the force of the explosion knocked most of the trees down in a sort of semicircle around the volcanic vent. In all probability this will result in a dark to black petrified wood due to the acidity of the dust and ash. When digging this material after it petrifies it will be surrounded by a layer of ash. In time we will have a beautiful material created by a great disaster.

The mineral barite is used to add weight to oil well drilling mud to keep oil in the drill hole and prevent oil from gushing out of the hole.

by Pete Williams, 2019 Secretary

CMS General Meeting Minutes April 11, 2019

Meeting called to order at 7:11

Minutes were approved as written.

Treasurer's Report: The club is doing well.

<u>Tumbler Editor</u>: Everything's fine.

<u>President's Report</u>: The business meeting will be shortened to provide more time for the rock bingo.

<u>Webmaster/Membership Report</u>: Flyers are available for members to advertise the upcoming CMS gem show in September. There are 15 more booths to sell. If members know of any vendor to invite see Mark. Preparation for the show is moving along well.

Field Trip Report: The next field trip is to Saddle Mountain on April 20. There will be 2 field trips in May. One to Greenwater with the Puyallup club and the CMS field trip to First Creek.

<u>Mineral Council</u>: Members can read Senate bill 47 regarding managing federal lands that was passed by Congress and signed by the President. One of many things in the bill is providing 4th graders and their families with a free pass to federal lands similar to what is provided to seniors.

Program: Rock bingo. Everyone won something and fun was had by all.

Notes On The Various Activities Of The Government Agencies by Bob Pattie

Senate bill: S.47: John D. Dingell, Jr. Conservation, Management, and Recreation Act

This bill was introduced on Jan 8. 2019 and the Senate voted on Feb 12, 2019, the House on H. Con. Res. 21 on Feb 27, 2019 and the President on Mar 12, 2019. When this bill was signed it was 206 pages long. This bill covers many government land usages, some are helpful to the non-commercial rock hound and some will limit some rock hound activities on government land. The act is to provide for the management of the natural resources of the United States, and for other purposes. The main parts of this bill are: TITLE I — Public lands and forests, TITLE II — National Parks, TITLE III — Conservation authorizations, TITLE IV — Sportsmen's access and related matters, TITLE V — Hazards and mapping, TITLE VI — National heritage areas, TITLE VIII — Wildlife habitat and conservation, TITLE VIII — Water and power, and TITLE IX — Miscellaneous. This bill covers land across the United States and most if not, every state has something being affected.

The Methow Valley, Washington, Federal land withdrawal, and Oregon Wildlands topics are included in Title I, The Mountain to Sound Greenway National Heritage is include in Title VI, Yakima River Basin Water Enhancement Project, and Every Kid Outdoors Act is included in Title IX. There are many other sections that deal with the some of the areas we rock collect in the northwest and I would suggest the you read those area's where have an interest. The web page: https://www.govtrack.us/congress/bills/116/ s47/text

On the local scene I would suggest that you review the following web sites, they are for the Mt. Baker — Snoqualmie National forest, the first one is the SOPA report which is release once a month, the second is their home page and it gets you to pass and present projects and their status. These reports have a short note and a person that is in charge of that specific project.

https://www.fs.fed.us/sopa/forest-level.php?110605

https://www.fs.usda.gov/projects/mbs/landmanagement/projects

Quartzite (Not The Other Quartszite, The Boring Stuff In Your Bathroom)

Quartzite (from German: Quarzite) is a hard, nonfoliated metamorphic rock which was originally pure quartz sandstone. Sandstone is converted into quartzite through heating and pressure usually related to tectonic compression within orogenic belts. Pure quartzite is usually white to grey, though quartzites often occur in various shades of pink and red due to varying amounts of iron oxide (Fe_2O_3) . Other colors, such as yellow, green, blue and orange, are due to other minerals.

When sandstone is cemented to quartzite, the individual quartz grains recrystallize along with the former cementing material to form an interlocking mosaic of quartz crystals. Most or all of the original texture and sedimentary structures of the sandstone are erased by the metamorphism. The grainy, sandpaper-like surface becomes glassy in appearance. Minor amounts of former cementing materials, iron oxide, silica, carbonate and clay, often migrate during recrystallization and metamorphosis. This causes streaks and lenses to form within the quartzite.

Orthoquartzite is a very pure quartz sandstone composed of usually well-rounded quartz grains cemented by silica. Orthoquartzite is often 99% SiO_2 with only very minor amounts of iron oxide and trace resistant minerals such as zircon, rutile and magnetite. Although few fossils are normally present, the original texture and sedimentary structures are preserved.

The term is also traditionally used for quartz-cemented quartz arenites, and both usages are found in the literature. The typical distinction between the two (since each is a gradation into the other) is a metamorphic quartzite is so highly cemented, diagenetically altered, and metamorphosized so that it will fracture and break across grain boundaries, not around them.

Quartzite is very resistant to chemical weathering and often forms ridges and resistant hilltops. The nearly pure silica content of the rock provides little for soil; therefore, the quartzite ridges are often bare or covered only with a very thin layer of soil and (if any) little vegetation. from The Agatizer, 1/18

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Impact Craters in Solar System of Note - Part 4 by Kat Koch

The following are impact craters on other planets. They dwarf any impact craters found on Earth several times over.

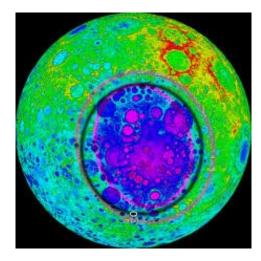
Earth's Moon: South Pole, Aitken Basin

This crater is found on the far side of the Moon, the diameter of this impact crater is equivalent to the distance from London to Athens. The massive Aitken basin measures 2,500 km (1,600 miles) across, and is the largest, deepest and oldest basin on the Moon. In fact, it's as deep as 6 km (3.7 miles) in some places. For comparison, some of the largest impact craters on Earth are only several hundred feet deep.

The Aitken basin is thought to have formed about 4.3 billion years ago, just a few hundred million years after the formation of the Moon itself. Its origin, however, remains somewhat of a mystery. If it formed through a high-velocity impact then scientists would expect to find material from deep within the Moon's mantle at the bottom of the basin, but this doesn't seem to be the case.

Instead, it's thought that a low-velocity projectile hundreds of meters across impacted the Moon at an angle below 30 degrees, enough to create the giant crater but not fast or steep enough to dig deep into the lunar surface.





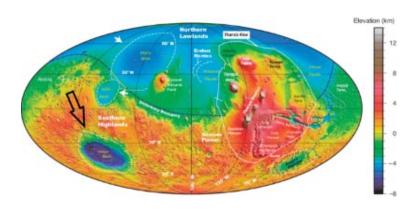
Mars: Hellas Planitia

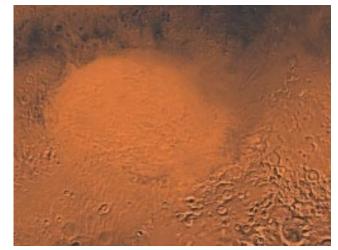
The largest visible impact crater in the Solar System is Hellas Planitia on Mars. Hellas is the largest visible impact crater known in the Solar System. The basin floor is about 7,152 m (23,465 ft) deep and extends about 2,300 km (1,400 mi) east to west. Considering its breadth and depth you could fit every Western European country inside it.

Material from the impact that formed Hellas Planitia stretches for up to a further 2 km (1.2 miles) from the walls of the crater. It is thought to have formed about 3.8 to 4.1 billion years ago when Mars was hit by a number of objects during the Late Heavy Bombardment period in the Solar System.

Within the crater there are a number of interesting features that might make it an interesting place to visit on a future exploration mission. It contains gullies that would allow for the presence of liquid water if the temperature rose high enough, owing to their distance below the surface.

Radar images from the Mars Reconnaissance Orbiter also suggest that glaciers reside beneath layers of rock and dirt in three further craters inside Hellas Planitia.





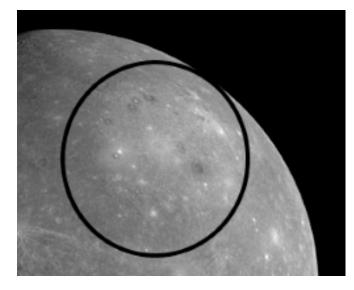
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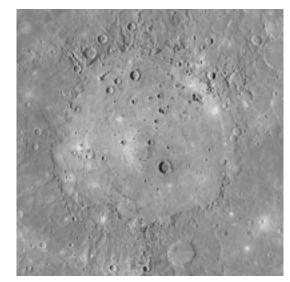
The Tumbler

Mercury: Caloris Planitia Crater

Caloris Planitia is a plain within a large impact basin on Mercury, informally named Caloris, about 1,550 km (960 mi) in diameter. It is one of the largest impact basins in the Solar System. "Calor" is for "heat" and the basin is so-named because the Sun is almost directly overhead every second time Mercury passes perihelion. The crater, discovered in 1974, is surrounded by the Caloris Montes, a ring of mountains approximately 2 km (1.2 mi) tall.

In the center of the basin is a region containing numerous radial troughs that appear to be extensional faults, with a 40 km (25 mi) crater located near the center of the pattern. The exact cause of this pattern of troughs is not currently known. The feature is named Pantheon Fossae.





Bibliography: Space Answers, Wikipedia, Research Gate

Yucca Flat in Nevada is the most cratered landscape on earth. The craters are the remnants of nuclear tests conducted by the United States since early in the Cold War.

from USGS Twitter, 4/10/19

A Little Iron Goes A Long Way by Richard Knox

People are always searching for ways to counteract the effects of the rusting of iron and of iron rust stains. However, it was not always that way. Ancient peoples often used iron rust, or ocher, in their decorations.

Iron rust is very common in nature and the iron oxide (of which rust consists) or sometimes iron atoms themselves, are often responsible for the coloration of some of our most important gemstones. Some minerals that are used for jewelry have iron as a principle constituent. Hematite is 70% iron, and pyrite (marcasite) is 40% iron. Most of the agate and jasper that contains yellow, brown, and red colored zones are colored by the iron that is included in them.

In some gemstones, however, very small traces of iron within the crystal structure of the mineral can produce dramatic changes in color. A few tenths of a percent of iron within the crystal can turn an ordinary looking mineral into a beautiful gem that has both aesthetic and monetary value.

A few tenths of a percent of iron in the lattice structure of quartz produces both the citrine and amethyst. If citrine is irradiated, it becomes amethyst, and if amethyst is heated it is altered to citrine. This process is reversible.

Beryl is another gemstone in which traces of iron can influence the color. In aquamarine, a few percent of iron causes both the green and the blue color that can be found in the gemstone, depending upon where the iron atoms are located within the crystal lattice.

The green color can be removed by heat, leaving only the blue color. This is more pleasing by present day standards. The green color can be replaced by irradiation if desired.

The color of golden beryl also is caused by a small percentage of iron atoms, in fact, the same atoms that sometimes make aquamarine look green. It can be bleached to a colorless beryl (goshenite) by heat and then returned to its golden hue by irradiation.

When one tenth to three tenths of a percent of the mineral corundum is iron atoms, it produces a yellow gemstone known as yellow sapphire. If a like amount of the metal titanium is also present, we have the more desirable and better known blue sapphire.

There are many other gemstones and minerals that owe their color to traces of iron, sometimes by itself and sometimes in combinations with other elements.

via Rocky Trails, 10/17; via Carney Hound, 4/16; Glacial Drifter, 3/96; from Tumble Rumble

Exploring The Moon

The moon is the easiest celestial object to find in the night sky-when it's there. Earth's only natural satellite hovers above us bright and round until it disappears for a few nights. The rhythm of the moon's phases has guided humanity for millennia. For instance, calendar months are roughly equal to the time it takes to go from one full moon to the next. Moon phases and the moon's orbit are mysteries to many. For example, the moon always shows us the same face. That happens because it takes 27.3 days both to rotate on its axis and to orbit Earth. We see either the full moon, half-moon or no moon (new moon) because the moon reflects sunlight. How much of it we see depends on the moon's position in relation to Earth and the sun.

Though a satellite of Earth, the moon, with a diameter of about 2,159 miles (3,475 kilometers), is bigger than Pluto. (Four other moons in our solar system are even bigger.) The moon is a bit more than one-fourth (27 percent) the size of Earth, a much smaller ratio (1:4) than any other planets and their moons. This means the moon has a great effect on the planet and very possibly is what makes life on Earth possible.

How did the moon form?

There are various theories about how the moon was created, but recent evidence indicates it formed when a huge collision tore a chunk of Earth away. The leading explanation for how the moon formed was that a giant impact knocked off the raw ingredients for the moon off the primitive molten Earth and into orbit. Scientists have suggested the impactor was roughly 10 percent the mass of Earth, about the size of Mars. Because Earth and the moon are so similar in composition, researchers have concluded that the impact must have occurred about 95 million years after the formation of the solar system, give or take 32 million years. (The solar system is roughly 4.6 billion years old.) New studies in 2015 gave further weight to this theory, based on simulations of planetary orbits in the early solar system, as well as newly uncovered differences in the abundance of the element tungsten-182 detected in the Earth and the moon.

Internal structure

The moon very likely has a very small core, just 1 to 2 percent of the moon's mass and roughly 420 miles (680 km) wide. It likely consists mostly of iron, but may also contain large amounts of sulfur and other elements. Its rocky mantle is about 825 miles (1,330 km) thick and made up of dense rocks rich in iron and magnesium. Magmas in the mantle made their way to the surface in the past and erupted volcanically for more than a billion years-from at least four billion years ago to fewer than three billion years past. The crust on top averages some 42 miles (70 km) deep. The outermost part of the crust is broken and jumbled due to all the large impacts it has received.

Atmosphere of the moon

The moon has a very thin atmosphere, so a layer of dust - or a footprint - can sit undisturbed for centuries. And without much of an atmosphere, heat is not held near the surface, so temperatures vary wildly. Daytime temperatures on the sunny side of the moon reach 273 degrees F (134 C); on the dark side it gets as cold as minus 243 F (minus 153 C). *Surface composition*

Like the four inner planets, the moon is rocky. It's pockmarked with craters formed by asteroid impacts millions of years ago. Because there is no weather, the craters have not eroded. The average composition of the lunar surface by weight is roughly 43 percent oxygen, 20 percent silicon, 19 percent magnesium, 10 percent iron, 3 percent calcium, 3 percent aluminum, 0.42 percent chromium, 0.18 percent titanium and 0.12 percent magnese.

via Golden Spike News, 10/17; from DelAire Rockhounder Review

Rockhounds You Can't Take It With You! by Trudy Martin

There is no way, when your number comes up, that you can take your rock collection with you when you go to your heavenly reward.

It has to stay behind for your family to dispose of. What are they going to do? Most of them have no idea what the rocks are or what they are worth. As the old saying goes, they will probably throw out the baby with the bath water! They have no idea what is gem material and what is leaverite. It is up to YOU to make sure your collection is correctly identified.

Please put labels or stickers on your rock, slices, faceting rough, minerals, fossils and silver. An uninformed person can't tell the difference between a piece a sodalite and a piece of lapis. Nor can they tell the difference between genuine, gem quality faceting rough and glass. To the novice, slices of jasper are just that - Jasper. They can't identify Bruno Jasper, Biggs Jasper, Rain Forest Jasper from the run-of-mill jaspers found in the local gravel pit.

When it comes to agate, well, that's a horse of a different color! Some agate is priceless because the area it was found in is no longer available for hunting. Minerals and Fossils are another major problem. If they don't have a label or a sticker to identify what they are and where they are from, the family will be at a loss to put a value on the specimens.

Other collectors, museums and dealers, will be hesitant about purchasing the collection if it is not properly identified.

So, Rockhounds, it is up to you, while you are still here on earth to properly identify your rocks, minerals, fossils, gemstones and jewelry. If specific pieces are to go to specific relatives or organizations, write it down. An inventory sheet with approximate dollar value would be helpful, too.

Don't put it off. Do it now while you are still here. Your family will thank you when the time comes.

via T-Town Rockhound, 5/18; via Ozark Earth Science Club News, 4/18; via Franklin County Rockhounder, 2/09; from S.C.R.I.B.E., 10-12/08

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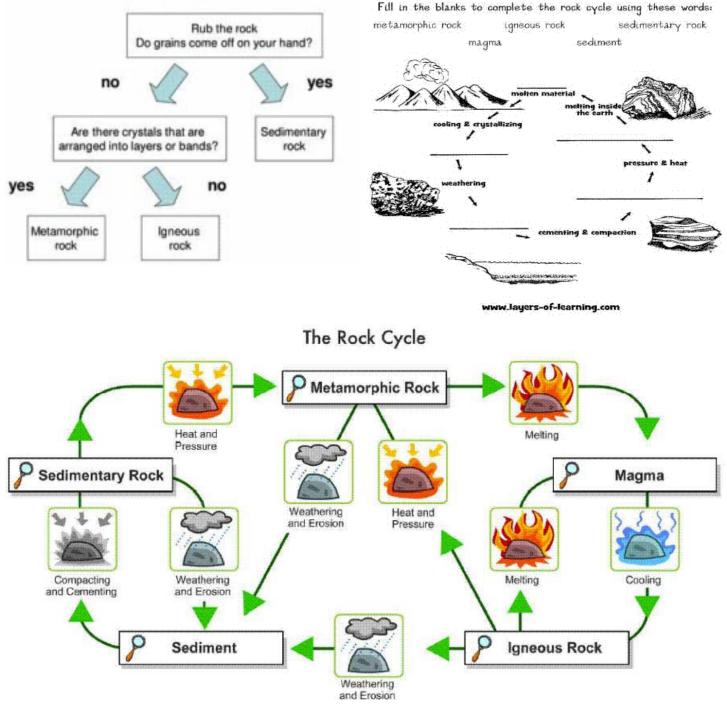
May 2019

The Rock Cycle

Young Tumblers News

Ever wonder what type of rock or mineral you just found and how it was formed? These charts will help you identify your treasure and learn how it came to be made! Fill in the worksheet below and bring it to the next CMS meeting to earn RockBucks!

Identifying types of rocks



Something To Chew Over

The white powder found on sticks of gum can be sugar, talc, or calcium carbonate. The purpose is to absorb oils and prevent the gum from sticking to the wrapper.

Gum manufacturers also use talc and calcium carbonate as bases for their chewing gums.

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Young Tumblers News

Astrology Signs & Their Stones by Keith Alan Morgan

Astrology signs have gems associated with them, called birth stones. Can you find all the signs and stones? The words go in all directions, forwards, backwards, up and down, and diagonal. Have fun!

Kids, bring the completed puzzle to the meeting and get \$2 in Rock Bucks.



Triceratops Twins Answer

In last month's puzzle, Triceratops' heads C and G were identical.

Diatoms, microscopic single-celled plants that live in fresh or sea water, have extremely intricate shells made of silica. When large numbers of these shells are deposited, diatomite is formed. When diatomite is cleaned and packed to form a filter, the intricate geometry of the shells will remove impurities as small as 0.1 micron from the water without the use of chemicals. Diatomite can also be used as a non-chemical insecticide, the sharp silica shells cut and shred the insects.

Sources: U.S. Geological Survey, Minerals Information Institute

from https://minerals.usgs.gov/west/morefun.htm, 12/15/17

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.

Information from the Washington State Mineral Council webpage (http://www.mineralcouncil.org).

May 25Darrington Rock Club - Red Br. Verlot - Meet at Verlot Ranger Station before 9:00 am - Rainbow Chert,
Concretions - Bring light hard rock tools
Ed Lehman wsmced@hotmail.com h# (425) 334-6282 c# (425) 760-2786

Safety Matters- Stop! by Ellery Borow, EFMLS Safety Chair

Yes, Stop...Look...Listen and be safe. One often hears that there is no such thing as an accident. I however, do subscribe to the notion that there are accidents, that there are things we have no control over.

One may have an automobile with which one has followed every recommended maintenance schedule, had regular service of its many parts and pieces, and secures second opinions on any matter that is of concern, and yet still have a problem with occasional breakdowns at the most inconvenient times. Thus, problems and accidents still occur - even with the most thoughtful and proactive attention to maintenance and service schedules. That said, I still have to believe that by reading the manual, following the guidelines, paying attention to what one is doing, and minding ones common sense, one can prevent the vast majority of those inconvenient things we call accidents.

Being human beings, we sometimes get into a groove, a rut, a certain way of doing things. In fact, we do some things so often we hardly pay attention to what we are doing. How many times have you swung a rock hammer, lit a jeweler's torch, touched a stone to a grinding wheel? Do you think of all the many associated safety concerns with each of those actions? I'm guessing probably not, just because we do those activities (and so very many other routine tasks) so often that our brains just sort of go on automatic during the activity. After all, we have done those things hundreds of times, maybe thousands of times - and all without incident or accident.

Well yes, routine tasks are indeed routine, but let me assure you that no two activities or actions, no matter how similar they may appear, are, or can never be, completely and exactly the same. In those small dissimilarities from one torch lighting to the next, from one hammer swing to the next, from one touch of a stone to the wheel to the next, the safety gremlins lurk and with the slightest of opportunities invite those pesky little accidents into our lives.

Yes stopping, looking, listening and all those many other precautions required to be safe take time away from the activities we enjoy, but so do trips to get a bandage, finding the antibiotic ointment, or dare I say, trips to the hospital.

Stopping, looking and listening with each activity we do is what we already do on some basic subconscious level with our attention. Things we perceive as higher risk get more of our attention. The problem is that even those low risk repetitions, monotonous, boring tasks, can pose risks and as such deserve our full attention. Now how does one keep ones full attention tuned in to the task at hand for safety's sake? Some suggestions:

- 1. Keep in mind every activity is a new and different one, even for tasks as simple as the strike of a rock hammer.
- 2. Every activity is a chance to practice your technique.
- 3. Every activity offers the opportunity to see it in a new light.
- 4. Every activity presents a chance to learn.
- 5. Every activity is new and fertile ground to be creative.

6. Every activity has the potential to be boring, but deserves to receive your full attention especially when safety is of oncern.

concern.

Yes stop, look, listen. In fact, feel free to employ all of your senses, even ones that one may not thing appropriate. I've been known to prevent disaster by sensing vibration from an unbalanced silicon grinding wheel and shutting down the machine before an accident occurs. Yes, use all your senses, even the most common one - that of common sense. You're safety matters and that is no accident.

via The Franklin County Rockhounder, 11/14; from EFMLS News, 11/14

A Devil's Playground Underfoot in Ventura County by Jim Brace-Thompson

As reported March 9 by the Ventura County Star, an underground blaze has sizzled away for more than a decade in hills above Fillmore. Here and there just outside Los Padres National Forest, wisps of smoke curl up from the ground. It's speculated that flames are kept burning by carbon-rich deposits and petroleum-based gas emissions that move through fissures down below. A supply of oxygen provided by landslides fuels the furnace, which topped 800°F during a study undertaken in 2008. Covering an area estimated to be 6 acres, the underground blaze seems to be growing, based on new infrared images taken during the Thomas Fire in December. Over the years, it has sparked at least a half dozen surface fires. Thus, every year firefighters bulldoze a zone around the area to prevent the spread of any flames that make their way to the surface from this little patch of the Devil's playground.

from Rockhound Rambling, 4,/18



Shows

<u>May 4 & 5:</u> Saturday 10 am - 6 pm; Sunday 10 am - 5 pm Everett Rock and Gem Club, 66th Annual Gem, Jewelry, & Mineral Show Everett Community College Walt Price Student Fitness Center 2206 Tower Street Everett, WA

<u>May 4 & 5:</u> Saturday 9 am - 5 pm; Sunday 10 am - 4 pm Umpqua Gem & Mineral Club, 49th Annual Show Rocks to Gems Douglas County Fairgrounds 2110 Frear Avenue I-5 Exit 123 Roseburg, Oregon

<u>May 11 & 12:</u> Saturday 10 am - 6 pm; Sunday 10 am - 4 pm Bozeman Gem and Mineral Club Gallatin County Fairgrounds 901 North Black Bozeman Montana

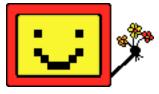
<u>May 11 & 12:</u> Saturday 10 am - 5 pm; Sunday 10 am - 4 pm Hatrockhounds Gem and Mineral Society Eastern Oregon Trade and Event Center (EOTEC) 1785 East Airport Road Hermiston, Oregon

<u>May 17 - 19:</u> Friday & Saturday 10 am - 5 pm; Sunday 10 am - 4 pm Mt. Hood Rock Club, Rock & Gem Show Jackson Armory 6255 NE Cornfoot Road (Take NE Alderwood Rd from NE Columbia Blvd - just south of PDX) Portland Oregon

> <u>May 18 & 19:</u> Saturday 10 am - 5 pm; Sunday 10 am - 4 pm Bitterroot Gem & Mineral Society, *Rock & Gem Show* Ravalli County Fairground 100 Old Corvallis Road Hamilton, Montana

<u>May 25 & 26:</u> Saturday 10 am - 5:30 pm; Sunday 10 am - 3:30 pm Oregon Coast Agate Club, *Rock'n The Coast* The Armory 541 SW Coast Hwy Newport, Oregon

<u>May 31 -June 2:</u> Friday, Saturday & Sunday 10 am - 5 pm **Puyallup Valley Gem & Mineral Club**, Annual Show Swiss Park 9205 198th Avenue East Bonney Lake WA



Internet Addresses

https://rocktumbler.com/ suggested by Rich Russell

