



Western Dakota Gem & Mineral Society
P.O. Box 1944
Rapid City, South Dakota
57701-1954

Here are some funnies that can be found at Naturally Funny.com.
These are by David Hudson

Why did the geologist bring a ladder to the rock concert? Because he wanted to
get a better view of the mineral bands!

What do you call a mineral that is always on time? A quartz watch!

ATTENTION!! ATTENTION!!

This month's meeting will be held at the Lions Building located at The Central States
Fairgrounds. Address is 800 San Francisco Street, Rapid City, South Dakota.



THE AMMONITE

Affiliated with RMFMS & AFMS

Next meeting (New location!!!):

6:00 p.m.

November 13, 2025

Lions Building

Central States Fairground

800 San Francisco Street

It is always rock hunting time!

The Purpose of our Non-Profit Club is to promote interest and education in geology, mineralogy, paleontology, archaeology and lapidary, to sponsor and promote the coordination of work efforts between groups and individuals.





The Ammonite Western Dakota Gem and Mineral Society

2024-25 Officers

President:	Kelli Wold	605 381-6418	kelliwold24@gmail.com
Vice President:	Sue Smith	605 484-9813	suekeystone@mt-rushmore.net
Secretary:	Julie Lundin	605 391-1516	rushmore1313@gmail.com
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CLUB Mailing: Western Dakota Gem and Mineral Society, PO Box 1954, Rapid City, SD 57709-1954

CLUB Website: www.WDGMS.org

CLUB Facebook: Western Dakota Gem and Society/groups

CLUB Email: westdakota.rocks@gmail.com

Meetings: Second Thursday of each Month (except August) at 6:00 PM (times can change)

At: Lions Building, Central States Fairgrounds, 800 San Francisco Street, Rapid City, SD 57701

ANY SUBMISSIONS FOR THE NEWSLETTER SHOULD BE IN BY THE 25TH OF EACH MONTH

Any questions about the material found in the Ammonite please contact the editor:

Deborah Vick, 265 Stumer Rd Apt 7, Rapid City, SD 57701

If you change your address, email address or have a problem receiving a newsletter:

Please Contact the Treasure at westdakota.rocks@gmail.com

Dues: \$15.00 per person - \$20 per family with children under 16 years – Includes 12 newsletters by e-mail. If you chose to receive the newsletter by mail, there is an additional \$10.00 fee. Dues cover the RMFMS insurance and an electronic copy of the newsletter.

Send dues to Treasurer, PO Box 1954, Rapid City, SD 57709-1954

October Minutes

President Kelli called the meeting to order at 6:06 pm. There were 28 members in attendance.

Old Business:

Kelli asked if we had a motion to accept the September minutes. Debbie motioned to approve and Pete seconded. Motion passed.

Leslie read the September treasurer's report. Jordan motioned to approve and Rod seconded. Motion passed.

New Meeting Place: Kelli informed the members that this was our last meeting at the Minneluzahan Senior Center. There were many possible locations to hold our monthly meetings that were looked at and reviewed. November's meeting will be held at the Lions Building at the Central States Fairgrounds. Please let us know what you think of the location.

Field trip: Debra explained Saturday's field trip will be west of Custer on Pleasant Valley Road. We will be looking for rocks with impressions of coral, shells, leaves and more.

RMFMS Conference and Grand Junction Show: Congratulations to Solomon Wills for winning 1st place in the Junior Cash Prize Division and to Debbie Vick for winning a trophy for her educational exhibit on *Beautiful Minerals in Massive Form*. Debbie also received several awards as editor of our Ammonite from both AFMS and RMFMS. Lori Loomis and Rob Wills were our club delegates at this year's RMFMS conference hosted by the Grand Junction Gem & Mineral Club in Colorado. The show was very well organized and well attended. They held a kids scavenger hunt that was travertine theme related. Rob talked to several people about kids clubs and AFMS badges.

Elections: Congratulations to our new officers for the 2025-2026 year:

President: Kelli Wold

Vice President: Sue Smith

Secretary: Julie Lundin

Treasurer: Alan Dorland

2026 Gem & Mineral Show- Debbie explained that we will again have the Nerdy Nuts Expo Hall and the GenPro Building. The Nerdy Nuts will host the vendors with 49 spaces available. The GenPro building will be for WDGMS club tables, show cases and not-for-profit and educational organizations. Rob spoke with the mayor of Rapid City about street banners no longer being permitted down town. Apparently there were some messages that the city deemed inappropriate and did not want to promote. They were not willing to make exceptions.

Jordan asked about putting a banner up at the Farmer Market and Diane stated she could put up some advertising at the Traders Market.

Historian- Jordan asked club members to help with writing articles about their experiences rock hounding. She would love to have them in the Ammonite and kept in the archives.

Debbie motioned for the meeting to adjourn and Jason seconded. Meeting adjourned at 6:54 p.m.

President's message

We had the election of officers at the October meeting. A big shout out to all that stepped up to fill the empty positions.

We will be asking the club for suggestions on what you would like to learn at each meeting and for field trip ideas. I would also like to say thank you to the past board members.

Their dedication to the Western Dakota Gem and Mineral Society help made this club what it is.

Thank you to Diane Gates for teaching us how to make gem trees. Each person had a different looking gem tree.

Remember the new meeting venue for November will be at Lions building at the Central States Fair grounds. The address is 800 San Francisco St Rapid City, SD.

We will try this new venue out to see if the club likes the new spot.

Treasurer Notes:

Club Account – We paid \$90 rent & deposited \$30 from last month's raffle & \$200 of dues. Bills that will be due before the end of the year include Trailer license renewal, Trailer insurance, post office box fee, Rocky Mountain Federation dues+ insurance, & South Dakota business renewal. Hopefully incoming dues renewal & sales of canvas bags will help offset these costs.

Show Account – No expenses. As of this date we have received 4 vendor contracts & deposited over \$900.

Question - Pete Lysenko would like to purchase the remaining 11 bags of panning gold for what we paid \$25 per bag plus tax = $\$275 + 17.19 = \292.19 .

Don't know how you want to arrive at a yes or no, but you can think about it.

MEMBER NEWS:

Mickey Snook is back in the hospital - cards welcome!

If you have any member news OR have a change in contact information, please give Larisa Bailey a call or email (605-580-5192, baileylarisa@gmail.com)

CANVAS BAGS FOR SALE!!! **\$10.00 at meeting.**
Support the club and gain an attractive, sturdy tote-bag.

Upcoming field trips:

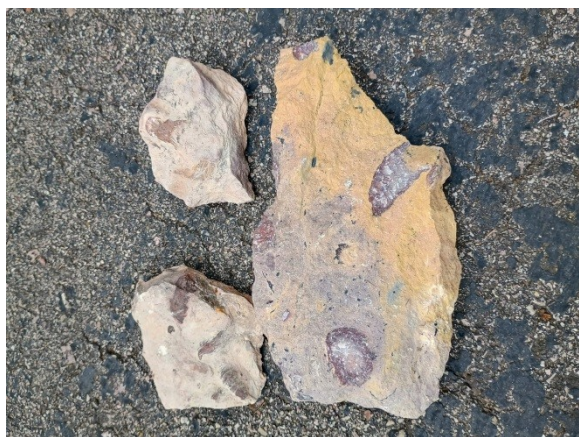
November – Hells Creek Museum in Belle Fourche – Weather permitting
Admission is \$10 as a group
December - TBD

Guest speakers:

November – Tom Hagen with Rushmore cave
December – Annual Christmas party

October Field Trip to Pleasant Valley Road notes

A small group of club members ventured out on a gorgeous southern Black Hills day to look for fossils or impressions of shells, coral and leaves. We were made aware of this location by Dave Hyland, a member of the Black Hills Prospecting Club. He explained to us that some years ago they widened the road and rocks from the overhang were pushed to the outside of the curve across the road. There was our hunting ground; just off the road, no hills to climb, no paths to navigate. A local man, who lived just down the road, stopped by and asked what we were doing. We informed him we were with the Western Dakota Gem & Mineral Society and we were looking for fossils, rock, minerals, anything interesting. He told us that "the pile" had been there for over 25 years and he had no idea there was anything more there than just rocks. That pile did not disappoint. Horned Coral (impressions and bulbs), palm wood, impressions of shells and leaves. No one left empty handed.



Here is the second part of Alan Dorland's article on Understanding Fluorescence

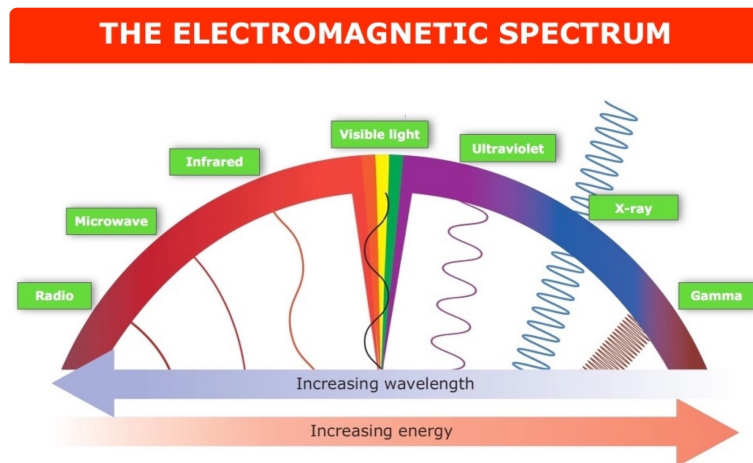
Understanding Fluorescence (Part 2)

Alan Dorland

In last month's Part 1 we discussed what "fluorescence" is, its many everyday applications and what causes an object to fluoresce. In this second part we'll get into some of the science behind opening up our world to the magic of fluorescence!

The Electromagnetic Spectrum

To understand fluorescence, we need to have a basic understanding of the Electromagnetic ("EM") Spectrum.

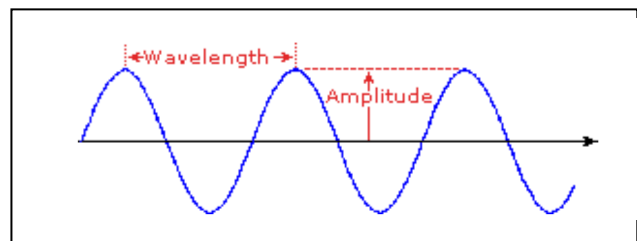


The EM Spectrum is generally divided into seven regions in order (left to right) of decreasing wavelength and increasing energy and frequency. There is an inverse relationship between the wavelength and the amount of energy being delivered. As wavelengths get shorter the energy in those shorter wavelengths gets larger, and vice-versa. This is very important to remember! Radio and infrared supply too little energy to cause visible luminescence. X-rays cause many dramatic luminescences, but X-ray sources are too expensive, not portable enough, and require too much shielding and attention to safety for ordinary use.

Visible light is a narrow wavelength band within the EM Spectrum between ultraviolet (UV) and infrared (IR) radiation. Energy across the entire EM Spectrum is always present, but humans can only see wavelengths in the visible light spectrum. The form of electromagnetic radiation that is most easily used to observe fluorescence is ultraviolet radiation, as generated by a "black light" or UV lights. When we work with UV lights we're working with wavelengths that are shorter than the visible light band. Those wavelengths have much more energy which is why we take precautions that I'll get into later in this article.

Wavelengths and Energy

Similar to viewing a radio signal through an oscilloscope, a "wavelength" is defined as the distance between adjacent peaks (or troughs), and may be designated in meters, centimeters or nanometers. Wavelengths are generally



measured and expressed in nanometers (nm). A nanometer is very, very small unit of measure. In fact, a nanometer is a *billionth* of a meter or 1/1000 of a micron. To put that in perspective, there are 25,400,000 nanometers in one inch. A human hair is approximately 80,000 - 100,000 nanometers wide, and one nanometer is about as long as your fingernail grows in one second. As wavelengths get smaller (less distance between the adjacent peaks) their energy levels increase.

Visible Light

Light is a form of electromagnetic energy. Light waves have both a frequency (Hz) and length (nm). The wavelengths within the visible light range are between about 380nm to 700nm.

The wavelengths in the visible

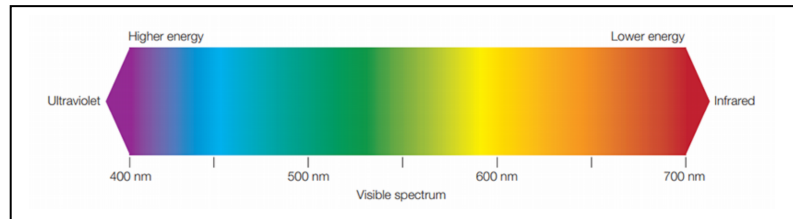
spectrum correspond to the colors that we see as red, orange, yellow, green, blue, indigo and violet as shown in the chart. Red light has the longest wavelength and thus the lowest energy. Violet light has a shorter wavelength and higher energy.

If we're looking at a yellow object we're perceiving light having a wavelength of around 580nm. This is a wavelength that is not being absorbed by the object we're viewing. The wavelength we're seeing is what is being reflected back into our eyes. This is important to understand when discussing fluorescence. We're shining UV light we *can't* see onto a mineral which then re-emits a light we *can* see within the visible light spectrum. So how come when we use a UV light it often appears dark blue? It's because the filter in the light – or the LED being used, isn't filtering out all of the visible light.

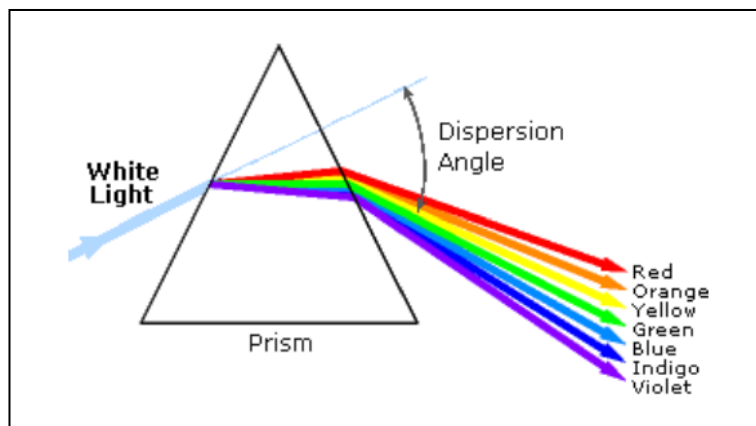
Advances in filter technology are happening pretty quickly to filter out visible light.

"Wait a minute, where's white and black" you might say! We see sunlight as uniform or homogeneous in color but it is actually composed of a broad range of radiation wavelengths in the ultraviolet (UV), visible and infrared (IR) portions of the spectrum. The color black is perceived when an object we're viewing absorbs all visible light rays, so nothing gets reflected back to our eyes which results in us seeing the color black.

The component colors of the visible spectrum can be separated by passing sunlight through a prism, which acts to bend the light in differing degrees of wavelength. We see a less distinct form of this when we're looking at rainbows where moisture in the air acts as a crude prism. It's also common when sunlight passes through cut glass. The order of the colors we see (the dispersion angle) correspond to the relative wavelengths of each color shown in the color chart.



- **Violet:** 400 - 420 nm
- **Indigo:** 420 - 440 nm
- **Blue:** 440 - 490 nm
- **Green:** 490 - 570 nm
- **Yellow:** 570 - 585 nm
- **Orange:** 585 - 620 nm
- **Red:** 620 - 780 nm



Here are pictures of the winners from WDGMS club members that entered cases at the Rocky Mountain Federation of Mineralogical Society's convention in Grand Junction Colorado in September.



Soloman Wills winning ribbon



Deborah Vick's winning trophy

Upcoming Area Shows

This information can be found at the www.rockandmineralshows.com. Please check the website current shows across the country and in Canada.

Omaha Gem & Mineral Show - 11/01/2025

Dates: 11/01-02/2025

Hours: Sat. 9-6, Sun. 10-4

Venue: Liberty First Credit Union Arena

Address: 7300 Q St

Liberty First Credit Union Arena, Ralston, NE

Website: <http://nerockgem.org/>

Huachuca Mineral and Gem Club Show - 11/07/2025

Dates: 11/07-09/2025

Venue: The Mall at Sierra Vista

Address: 2200 El Mercado Loop

The Mall at Sierra Vista, Sierra Vista, AZ 85635

Website: <https://hmgc.site/>

Annual Lake Havasu Gem & Mineral Show - 11/08/2025

Dates: 11/08-09/2025

Hours: 9:00 am to 5:00 pm sat, close 4:00 pm sunday

Venue: Aquatic Center

Address: 100 Park Ave

Aquatic Center, Lake Havasu City, AZ 86403

Website: <http://www.lakehavasugms.com/>

Gila County Gem & Mineral Society's Fall Show & Sell - 11/08/2025

Dates: 11/08/2025

Hours: 9:00 am to 2:00 pm

Venue: Bullion Plaza Cultural Center & Museum Lawn

Address: 150 Plaza Circle

Bullion Plaza Cultural Center & Museum Lawn, Miami, AZ 85539

Website: <http://gilagem.org/>

Wickenburg Gem & Mineral Show - 11/29/2025

Dates: 11/29-30/2025

Hours: Sat 9:00-5:00 Sun 10:00-4:00

Venue: Hassayampa School - Wrangler Event Center

Address: 251 S Tegner St

Hassayampa School - Wrangler Event Center, Wickenburg, AZ

Website: <http://www.wickenburggms.org/>

Indian Artifact Show - 11/09/2025

Date: 11/09/2025

Hours: 8:00-3:00

Venue: Clarke County Fairgrounds

Address: 2070 W McLane St

Clarke County Fairgrounds, Osceola, IA 60560

Website: <https://www.ozarksarrowheads.com/indian-artifact-show-calendar>

Jeffco Mineral Show - 11/14/2025

Dates: 11/14-16/2025

Hours: 10am - 5pm daily, last day 10am - 4pm

Venue: Jefferson County Fairgrounds

Address: 15200 W 6th Ave

Jefferson County Fairgrounds, Golden, CO 80401

Website: <https://www.danzrockshop.com/shows/jeffcomineralshow>