The official bulletin of the Dothan Gem & Mineral Club, Inc.

Rockhounds Herald

920 Yorktown Road, Dothan, AL 36301-4372

www.wiregrassrockhounds.com

July 2015

Words from...

The President

Well, summer time is here and it is time for vacations and road trips. Bruce Fizzell, Joan Blackwell and I recently did a day trip out to look for petrified wood in a new spot. We packed up a nice picnic lunch and hit the road. We were blessed with good food, good company and a beautiful day to slosh through the water. Joan finally found the piece of petrified wood she has been looking for (check out our pictures). Now she just has to figure out how to get a barge with a crane to go pick it up for her.

Our June summer social was nice. We met at noon, spent some time gabbing and had a bit of Show & Tell. Neil and Abbey Pollan brought some finds they collected from the Blountstown river banks. We all ate too much and drew names for prizes. Our next summer social will be on Saturday, July 25th. Lunch will be Pot Luck and we will be having an auction. We will meet at 12:00 and eat at 1:00. If you have any pieces you want to auction, bring them with you. You keep all the proceeds.

If you head out on collecting trips over the summer, take pictures so we can put them in the newsletter and post them on the website for everyone to see. For those of you who have acquired new specimens or created new masterpieces, bring them to the social and we will do Show & Tell.

Hope to see everyone at the July social.

Pat

Upcoming Shows

July 18 – 19	**Gem City Rock & Mineral Society**	**Casper, WY**
July 18 – 19	**Carlton County Gem and Mineral Club**	**Moose Lake, MN**
July 22 – 26	**Damian Bellgali Echo Valley Show**	**Franklin, NC**
July 25 – 26	**Long Island Mineral & Geology Society**	**Cutchogue, NY**
August 1	**Ishpeming Rock and Mineral Club**	**Ishpeming, MI**
August 7 – 9	**Copper Country Rock and Mineral Club**	**Houghton, MI**
August 8 – 9	**Pacific Crystal Guild**	**Walnut Creek, CA**
August 14 – 15	**Tahlequah Rock & Mineral Society**	**Tahlequah, OK**
August 14 – 16	**Townsend Rock Club**	**Port Townsend, WA**
August 14 – 16	**Midwest Faceters Guild**	**Grand Rapids, MI**
August 15 – 16	**Arklatex G&M Society**	**Bossier City, LA**

Source: http://www.the-vug.com/vug/vugshows.html

Summer Project #1 – Star Spangled Earrings

Star Spangled Earrings Instructions

Designed by Artbeads

Light up like a firework in the twilight's last gleaming with these dramatic dangling earrings. With a patriotic color scheme these are perfect for completing an Independence Day outfit.

Step one:
Cut the 040 oval link sterling silver chain into one 3 ½ inch long piece. Attach three of the smaller sterling silver star charms to their own 925/10 silver-filled 5mm open jump ring. Attach one star charm approximately 1 ½ inches up the chain and one charm to each end of the chain. Watch our Handy Tip video on how to use a jump ring for more help.

Step two:
Thread one 11x22mm variegated red, white and blue crystal teardrop bead onto one 2-inch silver-plated 20 gauge eye pin. Create a simple loop at the top of the eye pin and connect it to one sterling silver plain lever back earring and close.

Step three:
Measure 2 inches up the chain and attach this loop to the on the eye pin. Attach one large sterling silver star charm and close the loop.

Repeat these steps to create a second earring.

Approximate size: 4 1/4 inches
Estimated time: Less than 30 minutes
Difficulty level: Beginner

Tools and Supplies Used:
ZambaPro® Round Nose Pliers (TOOL-108)
ZambaPro® Chain Nose Pliers (TOOL-106)
Side Cutters - Semi Flush (TOOL-131)

List of Components:
11x22mm Variegated Red, White and Blue Crystal Teardrop Bead (BEAD-1946, qty 2)
040 Oval Link Sterling Silver Chain (925CH38, qty 1)
Sterling Silver Star Charm (CHARM246, qty 2)
Sterling Silver Star Charm (CHARM361, qty 6)
Sterling Lever Back Earring (Plain) (SS-LVR01, qty 2)
2-inch Silver-Plated 20 Gauge Eye Pin (SP-EP20-22, qty 2)
925/10 Silver-Filled 5mm Open Jump Ring, 20 Gauge (FIND-0703, qty 6)

Source: http://www.artbeads.com/make-earrings-fourth-of-july-teardrop-star-spangled.html

Rocks of the Blue Ridge & Piedmont: Region 1, con't

Along a line from northern Georgia to southwestern Virginia (with the line continuing into the Northeast) are small exposures of very unusual dark rocks called ophiolites (Figure 2.18). Ophiolites are made of former deep-sea sediment, oceanic crust and upper mantle material. The line of ophiolite exposures is located along the ancient suture between North America and the Iapetus Rocks of the Ordovician Taconic Mountains. These igneous rocks, which form the Ultramafic Belt, are mostly basalts, gabbros and peridotite. Peridotite, derived from the upper mantle, is commonly altered slightly through metamorphism to a greenish rock called serpentinite.

Ophiolites are recognized by their particular sequence of rocks that are not usually found at the surface. The sequence includes sedimentary rock from the ocean floor underlain by pillow basalts. As basaltic lava pours out of cracks in the oceanic crust, it cools very quickly in seawater and forms pillow-shaped masses of basalt. Beneath the pillow lavas are intrusions of gabbro. The lowest layer in the ophiolite sequence is composed of peridotite, a rock formed in the Earth's upper mantle and rarely seen at the surface. That these sequences are found far from the ocean today is evidence for the tectonic movements of the past.

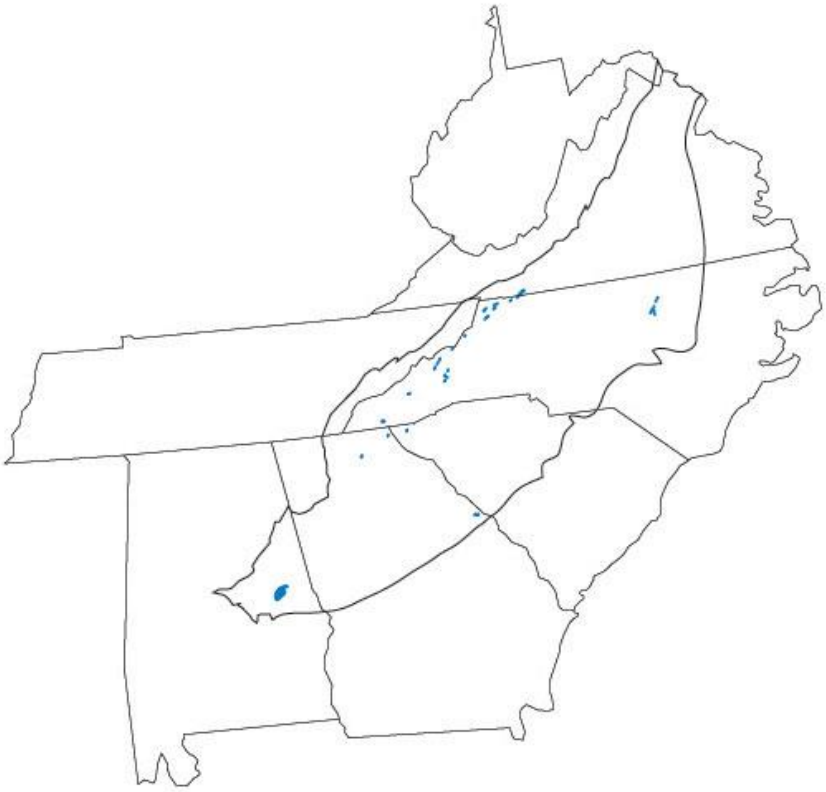


Figure 2.18: Ophiolite exposures along the ancient suture between North America and the Taconic volcanic

Ophiolites

When North America was on its collision course with the Taconic volcanic islands, the oceanic crust in between the continents was being pushed beneath the continental crust of the approaching North America. As the oceanic crust was subducted, some of the deep-sea sediments overlying the crust, the oceanic crust itself, and perhaps rock from the upper mantle, were scraped off the descending plate and did not get shoved back down into the mantle. Instead, the scraped off ophiolite was left stuck on the continental crust.

Subsequent erosion exposed this odd group of rocks that is so unlike the surrounding rock of the continental crust. The ophiolites are significant in the geology of the Southeast because they record the subduction of the oceanic plate beneath the Taconic volcanic islands as they collided with North America. Figure 2.19 by J. Houghton.

During and after the Taconic mountain building event, sediment continued to be deposited in the ocean basins then existing to the east and west of the Taconic Mountains, mixing with and then covering the limestone that had been building up along the margin of North America prior to mountain building.

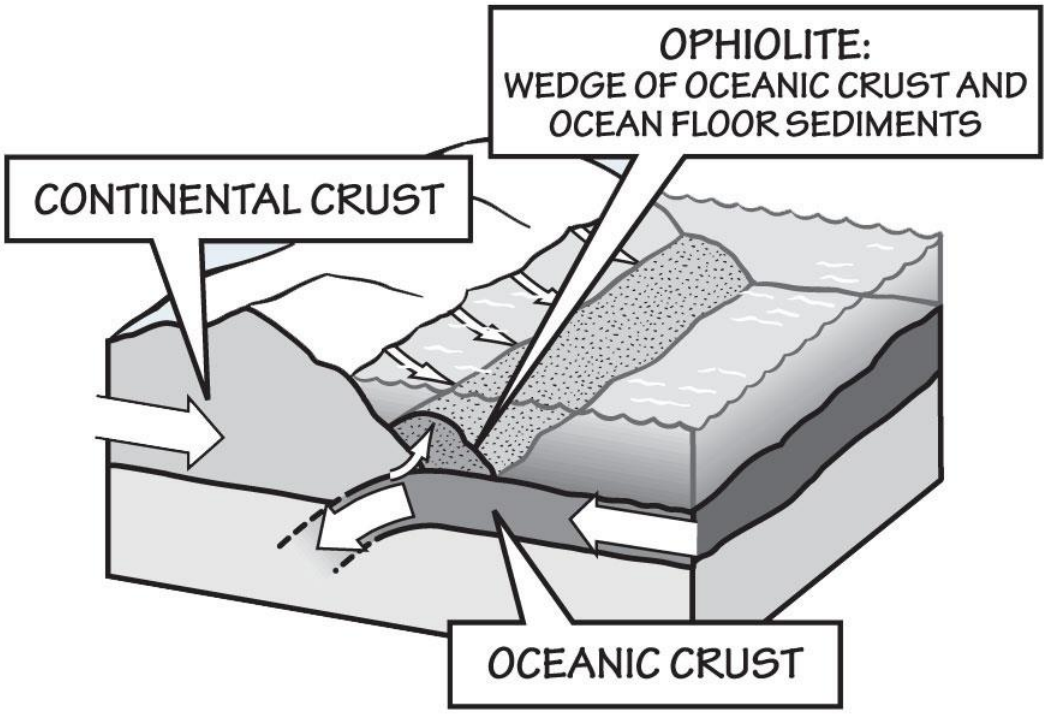


Figure 2.19

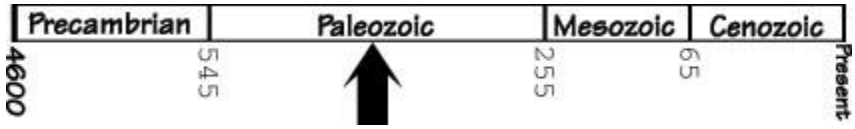
Light vs. Dark Igneous Rocks: clues to ancient chemistry!

Dark-colored igneous rocks generally come from either mantle magma or melting oceanic crust at a subduction zone, and are called “mafic” (meaning dark). Oceanic crust is dark, dense and rich in iron and magnesium. The dark color originates from the iron and magnesium, and a correspondingly low percentage of silica. Dark igneous rocks include basalt and gabbro.

Light-colored rocks are formed from continental crust that is melted from the pressure of overlying rock or friction from colliding plates. Continental crust derived sediments may also melt to form light-colored igneous rocks. Light-colored igneous rocks are very rich in silica and lack significant amounts of iron and magnesium, and include rocks such as granite.

The abundance of silica relative to iron and magnesium, and resulting internal structures of minerals, makes light-colored igneous rocks less dense than oceanic crust. Thus, continental crust, with a density of 2.7 g/cm3, is rarely subducted when plates collide because it is too buoyant to be pulled under. Oceanic crust, with a density of 3.2 g/cm3, is more easily pulled under an approaching plate.

Devonian Rocks



During the late Devonian, the Outer Piedmont Avalon Rocks were attached to the margin of North America. The Avalon Rocks include the Avalon microcontinent (made up of volcanic sediment, sandstone, mudstone, and intrusions) and the surrounding ocean basin sediment (made up of mud, ash, and sand) on either side of the microcontinent. In the collision with North America, the Avalon rocks underwent varying degrees of metamorphism depending on how close the rocks were to the center of the collision. Marine sediment became argillite, slate, gneiss, schist, phyllite, and quartzite; and preexisting intrusions were metamorphosed to amphibolite, greenstone, serpentinite, metagabbro, and metabasalt.

The Carolina Slate Belt stretches over 600 miles from Georgia to Virginia. Located in the outer Piedmont, the belt is a weak to moderately metamorphosed section of the Avalon Rocks. The slate belt includes argillite, slate, schist and phyllite and has significant gold deposits (Figure 2.20). The collision of the Avalon Rocks also resulted in igneous intrusions throughout the Piedmont, similar to Ordovician and earlier intrusions (Figure 2.21). Some of these intrusions formed pegmatites.

Figure 2.20: The Carolina Slate Belt.

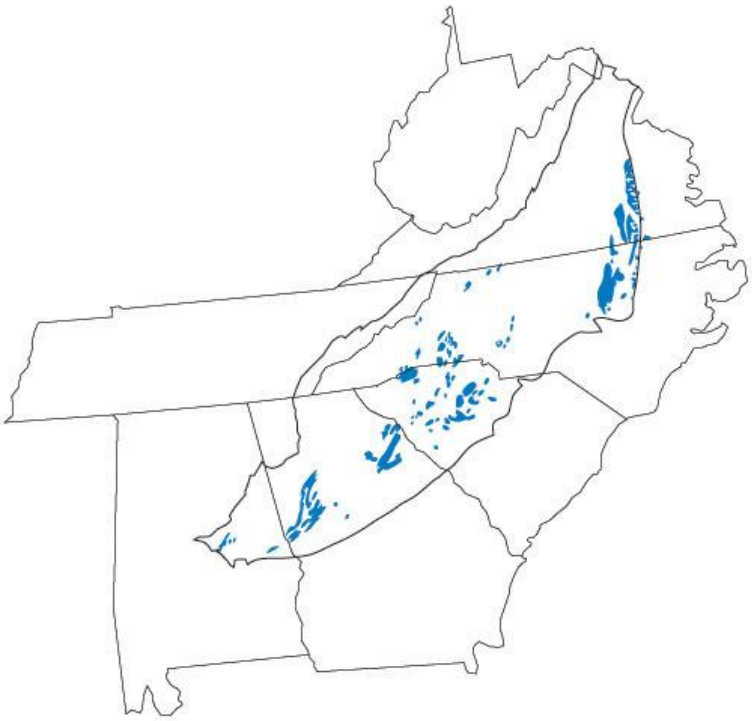


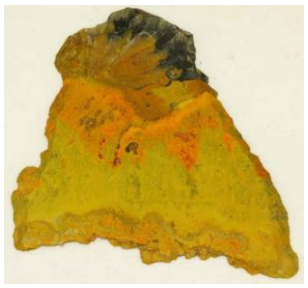
Figure 2.21: Igneous intrusions associated with the Devonian Acadian mountain-building event.

Picconi, J. E. 2003. The Teacher-Friendly Guide to the Geology of the Southeastern U.S. Paleontological Research Institution, Ithaca, NY.

Source: http://geology.teacherfriendlyguide.org/index.php/how-to-use-the-guide-se

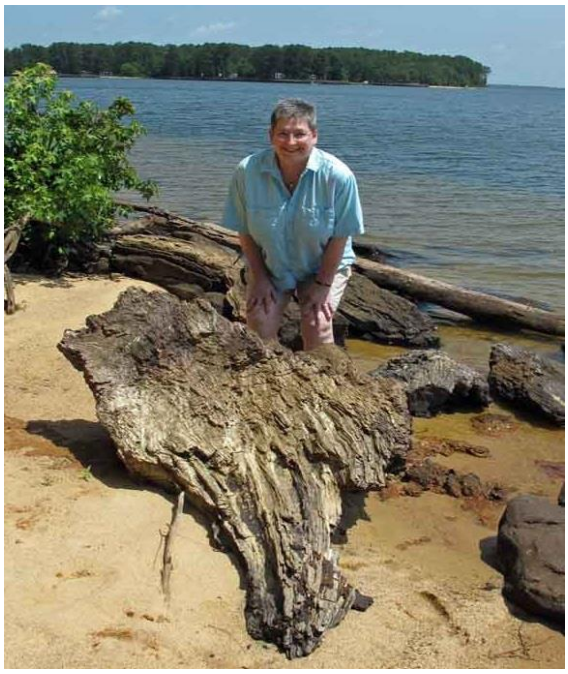
Club Social – June 2015

Photos by Pat & Bruce



Fun, food, prizes and conversation.

Impromptu Picnic and Dig – July 2015



Nice !!!

Kid's Corner

Learn About Rocks and Minerals

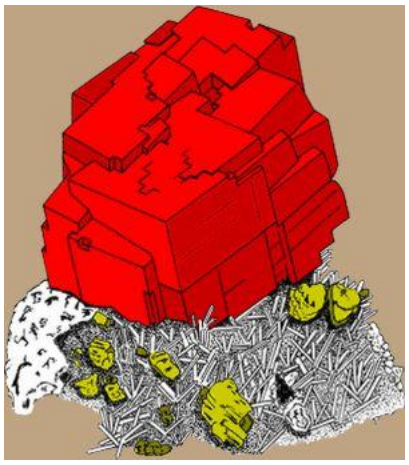
Geology

Geology is the study of the Earth. It includes both the history of the earth as well as the science relating to how the earth was formed and how it is constantly changing. An individual who studies the Earth is called a Geologist.

Petrology

Petrology is a branch of geology that focuses on the study of rocks and how they are formed.

In Petrology, rocks are identified by how they are formed. The three types of rocks are igneous, metamorphic and sedimentary.



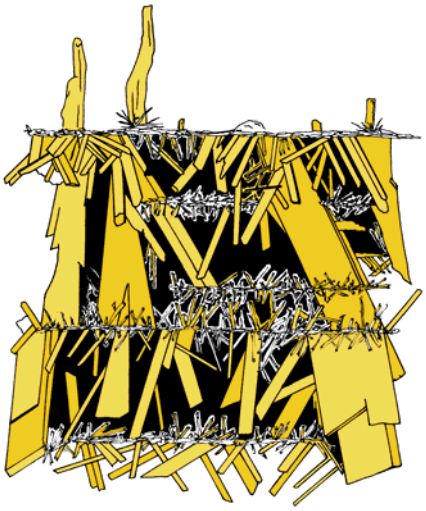
Mineralogy

Mineralogy is another branch of geology. Mineralogy is the study of the properties, occurrences, associations and uses of minerals. It is a very important topic to study because most of the items around you come from minerals.

It has been said, "If it is not grown, it is mined." The items in your life that did not come from a plant or animal came from minerals in the ground.

Source: http://www.kidsloverocks.com/html/learn_about_rocks.html

Making Your Own Crystals



With careful work, you can create your own crystals at home. This recipe is for alum crystals. You can use salt instead of alum. If you use alum, you will be able to make clear, octahedral crystals. You can buy alum at a drugstore.

Step 1: Make a *saturated solution* of alum. A saturated solution is a mixture of water and alum (or salt) that has so much alum in it that no more will dissolve. You can make a saturated solution by boiling a cup of water in a sauce pan. When the water is boiling, turn off the stove. Dissolve alum in the water by spooning in a tablespoon of alum at a time and stirring it into the water until it completely dissolves. Repeat this until the alum won't dissolve in the water anymore.

Step 2: Place the alum mixture aside and let it cool to room temperature.

Step 3: When the alum mixture is cooled, you will see alum on the bottom of the saucepan. Very carefully pour the water into a glass jar. *Be sure it is cool. If it is still hot, the glass jar might break.* Do not pour the undissolved alum into the glass jar.

Step 4: Put the jar in a warm place for two days. As the water evaporates, crystals will start to grow on the side and bottom of the jar. When you see a nicely shaped crystal (it will be diamond-shaped), carefully remove it from the jar with tweezers and dry it off with a soft cloth. This is called a *seed crystal*.

Step 5: Tie a very thin thread around your seed crystal. Tie the other end of the thread around the middle of a pencil.

Step 6: Prepare another jar of saturated alum solution.

Step 7: After the saturated solution has cooled to room temperature, lower the seed crystal into the new saturated solution. As the water evaporates, the alum molecules will attach to the seed crystal and it will grow larger and larger. (Be careful at this step: if you have not made a saturated solution or if the solution is still too hot, the seed crystal will dissolve in the water and you will have to start all over again!)

For more recipes, find a copy of the book "Crystals and Crystal Growing," by Alan Holden and Phylis Morrison published by MIT Press, 1982. *You can easily find copies of this edition and earlier editions through bookstores and internet book sources. This is a really great book if you are interested in making all sorts of high-quality crystals on your own!*

Source: http://www.kidsloverocks.com/pdf/Activity17.pdf

Who What Where When Why How

July Birthdays

JUL 2 Thomas Whittaker
JUL 15 Carlos Merino
JUL 16 Ellen Webber
JUL 21 Tina Polakoski
JUL 21 Autumn Whittaker
JUL 22 T. J. Moore
JUL 25 Diane Tetzlaff

Random Rock Facts

There's no better way to demonstrate your love than by giving a ruby in celebration of a July birthday. Rubies arouse the senses, stir the imagination, and are said to guarantee health, wisdom, wealth and success in love. Ruby is a variety of the gems species *corundum*. It is harder than any natural gemstone except diamond, which means a ruby is durable enough for everyday wear. Fine-quality ruby is extremely rare, and the color of the gem is most important to its value. The most prized color is a medium or medium dark vivid red or slightly purplish red. If the gem is too light or has too much purple or orange, it will be called a fancy-color sapphire.

Reprinted with permission from the American Gem Society
Source: http://www.americangemsociety.org/july-birthstone

Meeting Information

Time: 2:00 PM
Date: Fourth Sunday of each month (except June, July and August)
Place: Fellowship Hall – Tabernacle United Methodist Church
4205 S. Brannon Stand Road
Dothan, AL

Website: www.wiregrassrockhounds.com

Objectives

To stimulate interest in lapidary, earth science and, when necessary, other related fields.

To sponsor an educational program within the membership to increase the knowledge of its members in the properties, identifications and evaluations of rocks, minerals, fossils and other related subjects.

To cooperate and aid in the solution of its members' problems encountered in the Club's objectives.

To cooperate with other mineralogical and geological clubs and societies.

To arrange and conduct field trips to facilitate the collection of minerals.

To provide opportunity for exchange and exhibition of specimens and materials.

To conduct its affairs without profit and to refrain from using its assets for pecuniary benefit of any individual or group.

Classified Ads

Looking for an item to round out your rock collection?

Got a specimen, tool or handicraft for sale or trade?

Submit the pertinent details to me by the 10th of each month and your inclinations will be made known to the membership in the next bulletin.

N. J. Blackwell
28 Lakeview Trail, Apt. C
Daleville, AL 36322
Phone: 334-503-0308
Email: Tsavorite7@aol.com

Annual Dues

Single $15
Family $20

Officers

President – Pat LeDuc
334-806-5626

Vice President – Garry Shirah
334-671-4192

Secretary – Bruce Fizzell
334-577-4353

Treasurer – Diane Rodenhizer
334-447-3610

Bulletin Editor – Joan Blackwell
334-503-0308
Tsavorite7@aol.com

Webmaster – Pat LeDuc
334-806-5626

Membership Chair – Diane Rodenhizer
334-447-3610

Show Chair – Jeff DeRoche
334-673-3554

Field Trips Chair – Bruce Fizzell
334-577-4353

Hospitality Chair – Vacant

Club Hostess – Laural Meints
334-723-8019

Club Liaison – Garry Shirah
334-671-4192

Refreshments

JUL 25 – Potluck Social

ROCKHOUNDS HERALD
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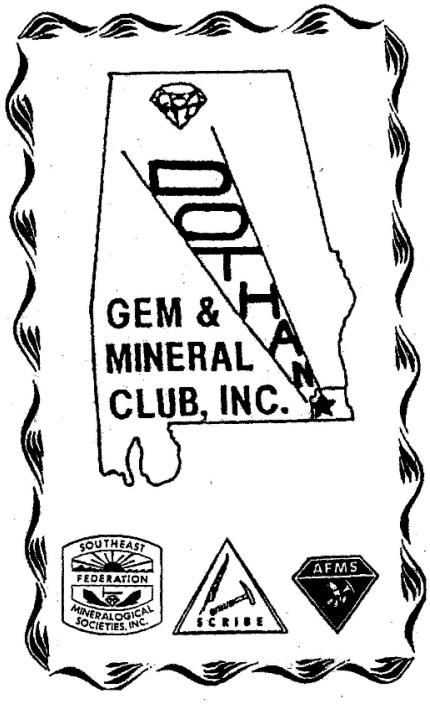

Where you might hear…

The geologic cycle is a collective term used to describe the complex interactions between the component sub-cycles of tectonic, hydrologic, rock, and the biological cycling of elements known as the biogeochemical cycle.

These various subcycles influence each other and may produce natural hazards and processes important to environmental geology such as landslides, earthquakes, volcanic activity, flooding, groundwater flow, and weather.

The rock cycle is influenced by all the other geologic subcycles. For example, tectonic processes provide the pressure and heat necessary to recrystalize some or all of the minerals in a rock and transform it from one rock type to another.

Source: http://imnh.isu.edu/digitalatlas/geo/basics/geology.htm

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Southeast Federation of Mineralogical Societies, Inc.
American Federation of Mineralogical Societies