

THE RECORD

Official Newsletter of the

South Coast Geological Society

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March 2015—Meeting Information & Upcoming Events

MEETING DATE: Monday, March 2nd, 2015

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Meeting Information

Time: 6:00 P.M. – Social Hour

6:50 P.M. – Dinner

7:45 P.M. – Presentation

Place: CSULB Chartroom

California State University,
Long Beach

6049 E. 7th, Long Beach, CA

<http://goo.gl/maps/Rjdtk>

Cost: \$30 (member),

\$35 (non-member),

\$15 (Student/Professor)

includes a free gift for first time students! Just ask.

Additional \$5 fee applies to reservations made after

Friday, January 27th

Please make your
Reservation Online:

[www.southcoastgeo.org/
meetings.shtml](http://www.southcoastgeo.org/meetings.shtml) or contact
our Secretary, Greg Shagam

Speaker: **Dr. Gregory Holk**, Associate Professor and Graduate Advisor from the Geology Department at CSU Long Beach

Topic: **“Faults as Superhighways of Fluid Flow through Earth’s Crust”** Circulation of aqueous fluids through Earth’s crust has profound effects on its geologic evolution. Major crustal-scale fault zones and crustal heat distribution both play a major role to determine fluid pathways. Case studies that showcase the interplay between crustal thermal evolution and these permeable zones are presented to demonstrate the importance of fluids on the tectonic evolution of Earth’s crust.

Bio: Dr. Holk is a stable isotope geochemist. He earned his Ph.D. from Caltech, where his dissertation defined the complex fluid regimes active during the tectonic and petrologic development of metamorphic core complexes. His research focuses on the circulation of aqueous fluids through Earth’s crust and the profound effects such fluids have on the geologic evolution of our planet. Before joining CSULB in 2000, Dr. Holk worked for two years in the mineral deposits group at the Geological Survey of Canada, where he developed stable isotope and other geochemical methods employed by the mining companies for the exploration of volcanic-hosted massive sulfide deposits that formed by large-scale hydrothermal activity on the seafloor. In addition, Dr. Holk worked at Queen’s University for two years, where he taught geochemistry courses and continued his work developing geochemical methods for mineral exploration that includes the utilization of Pb isotopes in the search for uranium deposits hosted at the unconformities of some of the world’s largest sedimentary basins (i.e., McArthur Basin, Australia).

At CSULB Dr. Holk teaches Mineralogy, Metamorphic Petrology, Earth Systems and Global Change, and Stable Isotope Geochemistry and serves as graduate advisor. Through numerous NSF grants, Dr. Holk has built the stable isotope laboratory located in the Institute for Integrated Research in Materials, Environments, and Societies. Continuing research includes: (1) an investigation of the role of fluids in deformational processes at the brittle-ductile transition in fault zones, (2) regional-scale isotope studies of one of the largest hydrothermal systems in the geologic record at the Canadian Cordillera, (3) studies that quantify the dehydration process during low-to-mid-grade metamorphism at the Otago Schist, New Zealand and Orocopia Schist, Southern California, and (4) the delineation of magma sources in an extensional continental arc environment, the Coastal Batholith of Peru.

President's Corner

Greetings to the SCGS Community -

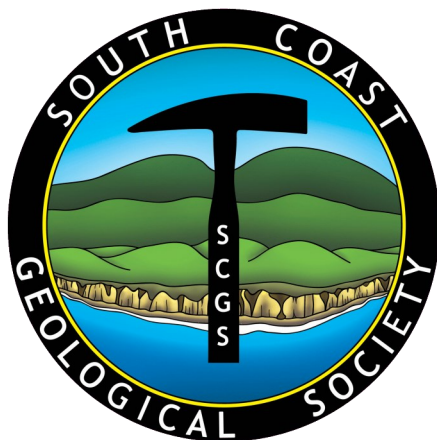
Thank you for the great attendance last month to hear Dr. Kim Bishop talk about large landslides (sturtzstroms – if I've spelled it right!). The next time I will drive by Baker on the I-15 I'll make sure to take another look at those isolated Paleozoic carbonates – are they remnants of landslides or not?

We continue to have good turnout for our meetings, especially students for which I'm grateful. Remember that this month we plan on having our monthly meeting at Cal State Long Beach to hear Dr. Gregory Holk, Associate Professor and Graduate Advisor from the Geology Department at CSU Long Beach. His presentation is titled, "Faults as Superhighways of Fluid Flow through Earth's Crust" and he will be expanding on the circulation of aqueous fluids through Earth's crust and its profound effects on its geologic evolution. Case studies that showcase the interplay between crustal thermal evolution and these permeable zones are presented to demonstrate the importance of fluids on the tectonic evolution of Earth's crust.

Recently, the notice regarding call for papers went out for the 2015 Annual Field Trip to the Southern Sierras. As always, we are looking for ideas, papers, guidebooks, leaders for potential stops, etc., that will help to make the trip a success (see attached flyer). More will follow, but if you wish to contribute or participate, please contact me at robert.ruscitto@arcadis-us.com or robertruscitto@gmail.com.

Best Wishes,

Bob Ruscitto
2015 SCGS President

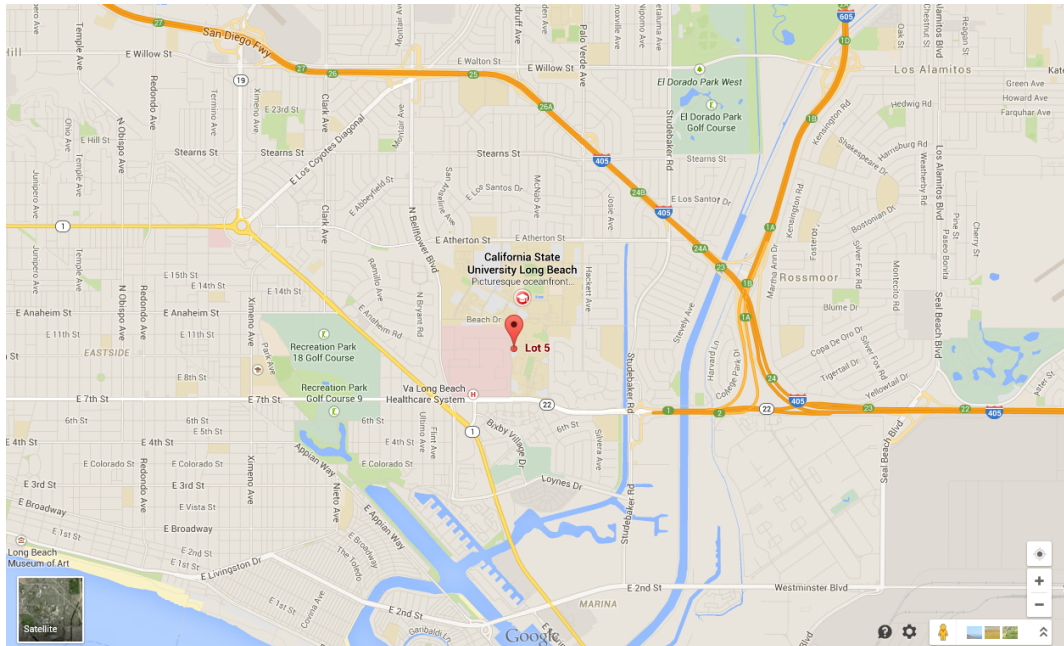


Maps and Directions

Don't forget our March meeting will be held at the CSULB Chartroom. Address to the university is: **6049 E. 7th, Long Beach, CA**

Parking will be in **lot 5** off of West Campus Dr. Below is a link and maps to the parking lot we will be using for the meeting. Park and head north to the café building

<http://goo.gl/maps/Rjdtk>



2015 Membership Information

The regular membership rate continues to be \$20 (deal!) and student membership continues to be free of charge. If you know a student, please forward them a form. Students, we want you here!

Interested in a corporate sponsorship? We hope so! Corporate sponsorships start at \$250 and include the placement of a corporate logo and contact information in the monthly newsletter, on our website and in our annual guidebook. Your corporate sponsorship will enable us to continue to offer stellar field trips, publish our guidebooks and increase student attendance!

SCGS Links & Forms

South Coast Geological Society Links

Meeting Sign-up Page - www.southcoastgeo.org/meetings.shtml

Web Page - Southcoastgeo.org

FaceBook - <http://www.facebook.com/group.php?gid=52437974687>

Twitter - <https://twitter.com/southcoastgeo>

Linked-in - [Please bug Jeff Miller about this page](#)

South Coast Geological Society Forms

Membership Form - <https://docs.google.com/document/>

Corporate Membership Form-

Field-trip Release Form-

Field-trip Participation Form -

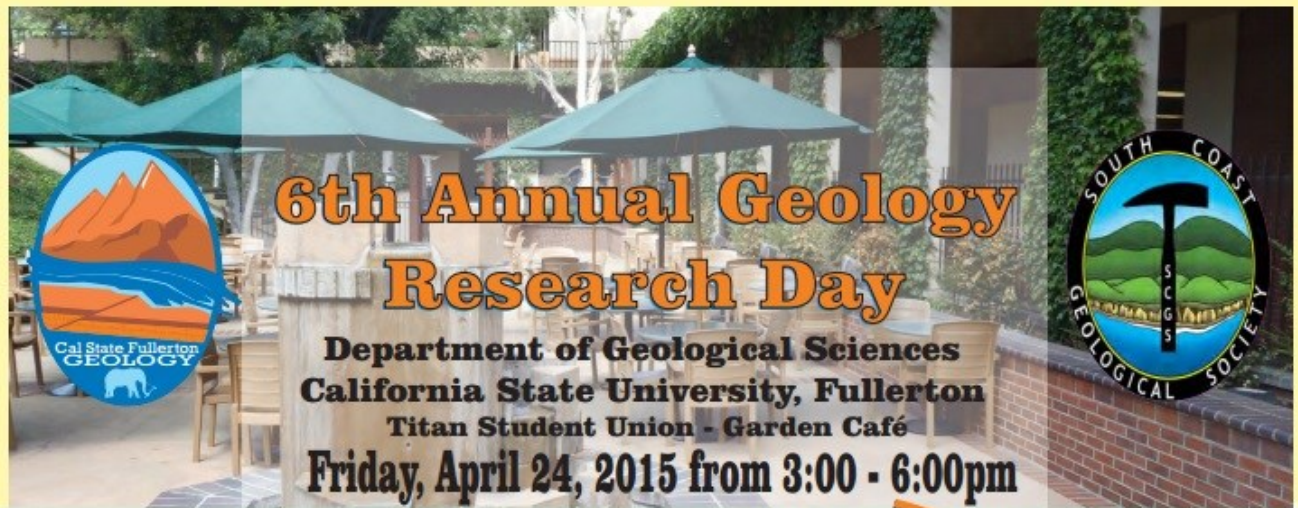
Publication Order Form- <https://drive.google.com/file/>

Discoveries

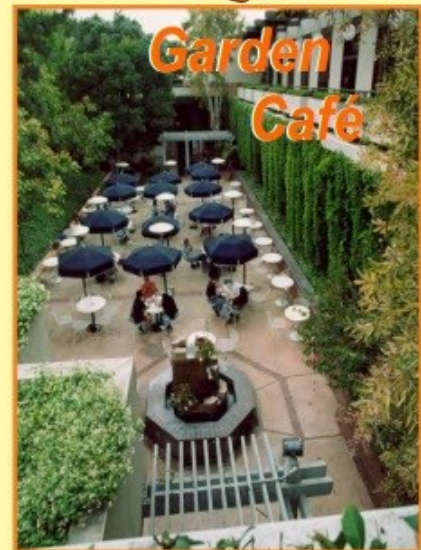
Mark Laymaster of Leymaster Environmental consulting is advertising to fill a senior Professional Geologist position at his firm. Mark is looking for someone at least 10 years of experience in the environmental field in Southern California. Preferably he or she would be in their 30's and have excellent people skills and experience with remediation. In Marks words, " I started Leymaster Environmental Consulting in 2000 and we are located at the corner of Bellflower Boulevard and Atherton Street in Long Beach. I am looking to bring in some younger blood that eventually could hire replacements, run the company, and obtain partial ownership without paying any money. It is a great opportunity for the right person and they would very likely be making very good money within a couple years if they are the right fit."

If interested contact Mark here: Mark@laymaster.net

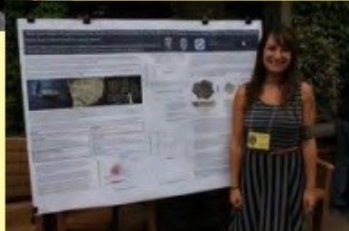
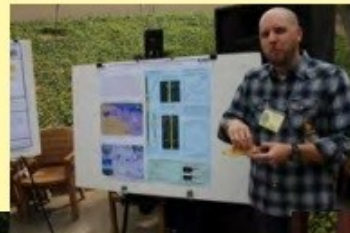
Discoveries (Continued)



Food, Drinks, Research,
Professional Contacts,
Prizes!!



Questions?
Email Rich Laton
wlaton@fullerton.edu



Upcoming Meetings and Links

San Diego Association of Geologists: – <http://www.sandiegogeologists.org/Meeting.html>

February 18: Chuck Houser - Calcite

March 18: Student Presentations

Inland Geological Society: – <http://www.inlandgeo.org/events.html>

<http://www.inlandgeo.org/>

LA Basin Geological Society: – <http://www.labgs.org/>

January 22nd, 2015—Prof. Donald L. Paul, University of Southern California:

Coast Geological Society: – <http://www.coastgeologicalsociety.org/meetings.html>

CGS is host to PSAAPG's 2015 Annual Convention

May 2-6 , Oxnard CA – <http://www.coastgeologicalsociety.org/may25theenergywave.html>

AEG Inland Empire: – <http://www.aegsc.org/chapters/inlandempire/meetings/>

Meeting January 21st, 2015. **Desmond Chung** of Geobrugg North America, LLC .:

Dirt can Hurt, Utilizing Flexible Solutions.

AEG SoCal: – <http://www.aegsc.org/calendar/>

February 25-28th— [AEG Professional Forum- Time to Face the Landslide Hazard Dilemma](#)

Geologists Drinking Beer Facebook: – <https://www.facebook.com/groups/297259306826/>

REI Outdoor School Programs: – <http://www.rei.com/learn.html>

<http://www.rei.com/outdoorschool/162>

Pacific Section AAPG: – <http://psaapg.org/>

Irvine Ranch Conservancy: – <http://irconservancy.org/>

<http://letsgooutside.org/activities/>

National Ground Water Association: – <http://www.ngwa.org/Events-Education/Pages/calendar.aspx>

Society for Mining, Metallurgy & Exploration: – <http://http://www.smenet.org/SouthernCalifornia/>
<http://www.smenet.org/>

Groundwater Resources Association of California: – <http://www.grac.org/>

Southern California Rocks and Roads: – <http://socalregion.com/geology/>

ASCE Orange County Branch: – <http://www.asceoc.org/upcoming-events>

Board of Professional Engineers, Land Surveyors, and Geologists: –

<http://bpelsg.ca.gov/>

Corporate Sponsorship

The South Coast Geological Society (SCGS) is one of the most active geological societies in California. This is due to the continued excellent participation of its members, the celebrated monthly speakers, and the renowned annual field trips and guidebook publications. The SCGS is devoted to promoting the Earth Sciences and minimize business and political debate.

SGGS members include persons in geologic professions largely living and/or working in Orange County, California. Membership includes all disciplines, ranging from hydrogeologists to geotechnical engineers to petroleum geologists to mining geologists to environmental geologists to college professors to students. It is a society run by volunteers with the purpose of sharing geologic ideas and fellowship during monthly meetings and an annual field trip.

To encourage student membership and participation, the student membership dues are free, and dinner costs are reduced for all professors and students attending a meeting.

Corporate sponsorship is encouraged and greatly appreciated. Sponsorships assist by funding guidebook publication, offsetting the food and supply costs for the annual field trip and funding scholarships.

South Coast Geological Society is very thankful for the following Corporate Sponsors



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“Common Sense Solutions”



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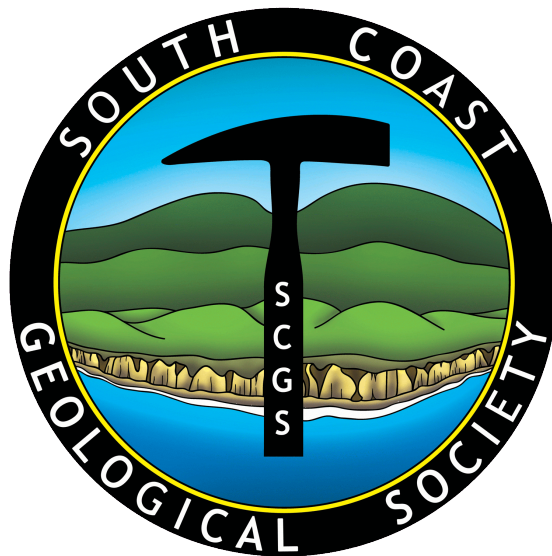
(714) 296.4055

<http://earthforensics.com/>

“Making the environment work for your bottom line”

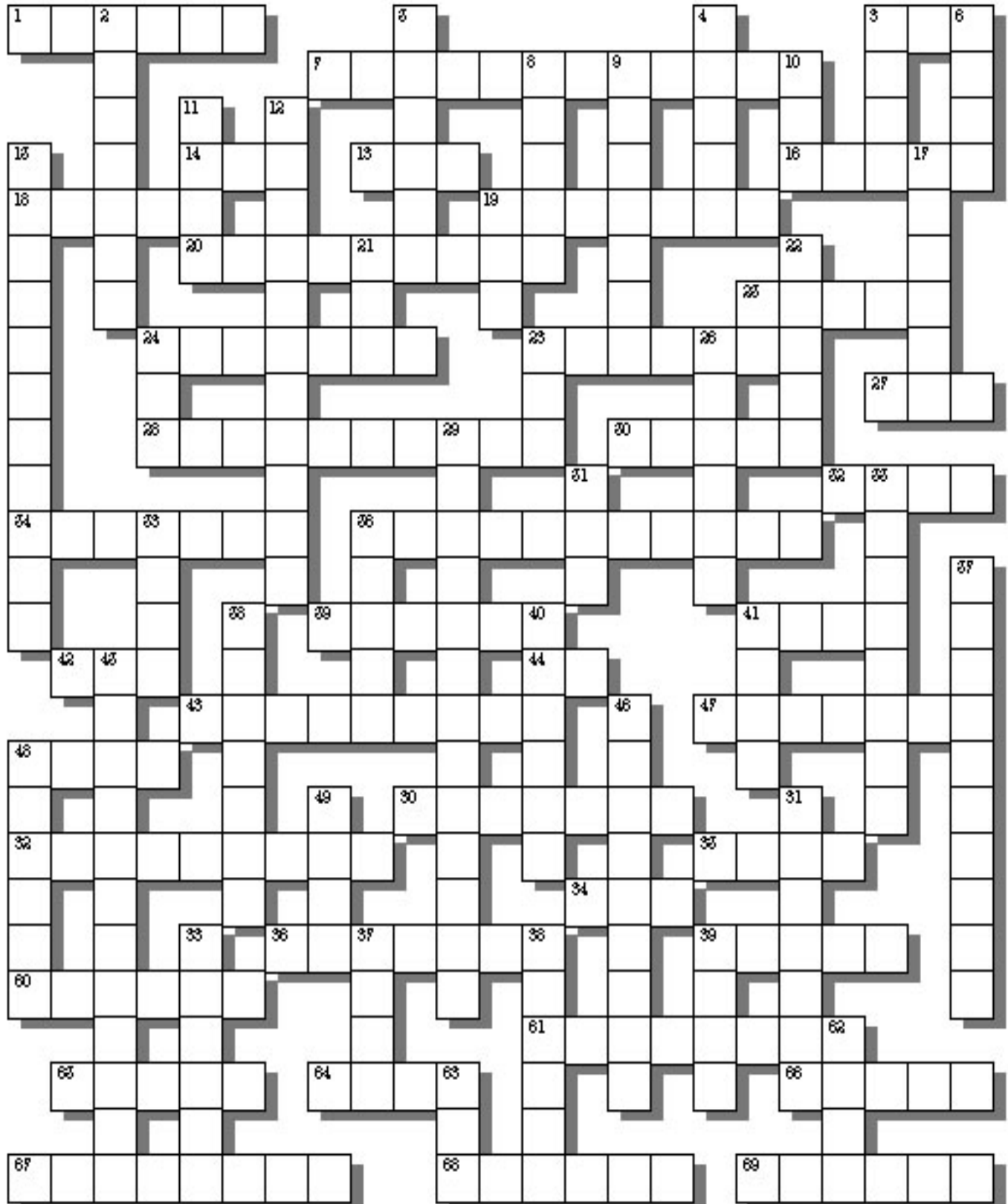


Bill Elliott



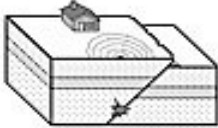

Fun for Geo-Nerds

Visit sbaran.net for a selection of Geology links & Geologic Dictionaries to help you with your crossword. You can also visit allwords.com and select Crossword Solver.



Earth Crossword Clues

Across

- 1) Fault where one block of Earth's crust is pushed on top of another
- 5) Computer in movie "2001"
- 7) Study of Earth's layers. **14)** $2 - 1 = \underline{\hspace{1cm}}$
- 15) President Lincoln
- 16) Molten rock underground
- 18) The liquid part of the core is the _____ core
- 19) This type of fault: 
- 20) Portion on Earth's surface directly above the Focus of an earthquake
- 23) Higher block of crust between two normal faults
- 24) Rock type that forms from molten rock
- 25) Crust under the oceans
- 27) Beautiful stone of value
- 28) Sudden movement along a fault
- 30) Hard stuff Earth is made of - fun to throw
- 32) **Unidentified Flying Objects**
- 34) A name for a felt, but weak, earthquake
- 36) Solid part of Earth consisting of crust and outer mantle
- 39) Common laminated metamorphic rock
- 41) Simpson with the skateboard
- 42) Solid water
- 44) You and me
- 45) Sedimentary rock of cemented sand grains
- 47) Earthquake caused ocean wave
- 48) A dog will chew on one
- 50) #5 on Mohs hardness scale
- 52) If #45's grains are really small
- 53) An exploratory mine into a hillside
- 54) Bergs are made of this
- 56) Rocks are made of one or more _____
- 59) Pat your head and rub your _____
- 60) A small earthquake
- 61) Downward folded rock with youngest on top
- 63) A large fracture in Earth's crust
- 64) A 1 to 10 hardness scale with diamond @ #10
- 66) Vader's first name
- 67) These make up minerals
- 68) This type of fault: 

- 69) Sun's type of nuclear reaction

Down

- 2) Earthquake scale name
- 3) Lower block of crust between two normal faults
- 4) Famous Australian gemstones
- 5) Monkeys _____ by their tails
- 6) Molten rock on Earth's surface
- 8) This part of Earth's core is solid
- 9) Fault when "hanging wall" goes up
- 10) Orange potato looking veggie
- 11) Center of Earth
- 12) Rock type formed from erosion or solution precipitation
- 13) Crust making the continents
- 17) Earth's "plastic" layer
- 19) Rusted iron in rock can give it this color
- 21) Large flightless bird
- 22) The point in Earth's crust where an earthquake starts
- 23) Short for Hello
- 24) When it is in a solid state it is a mineral.
- 25) Rocks and/or minerals mined at a profit
- 26) This element is in Earth's core with Iron
- 29) Zone of the Earth's upper mantle, below the lithosphere
- 31) Volcanic "dust"
- 33) In a Normal fault this block goes up
- 35) Drill holes are also called _____ holes
- 36) Web and chain _____
- 37) Fault where blocks move horizontally
- 38) An abundant intrusive Igneous rock
- 40) Valentine's Day goodies
- 41) Popular fishing fish
- 43) Sedimentary rock made up of other rocks
- 46) Layers of rock bowed upward with youngest on top
- 48) Main extrusive igneous rock found south of Spokane
- 49) Prefix meaning the opposite of
- 51) Pure carbon and the hardest mineral
- 55) A deep gulch or ravine, frequently dry (we have a dam named after one)
- 57) A prefix meaning one-billionth
- 58) Mineral property of light reflection
- 59) Softest mineral on Mohs Scale
- 62) Fleshy things on the side of your head
- 65) Where most Hydrogen is in our Solar System