

Membership Form

Yes I would like to become a member of the Geology Section of the Peoria Academy of Science.

Enclosed are my membership dues for

_____ Family \$16.00 _____ Individual \$10.00

Names: _____
(Last name, First name)(DOB - required for Midwest Fed.)

Address: _____

Phone: _____

E-mail: _____

Mail this completed form with your check made payable to:

**Geology Section/Peoria Academy of Science
P.O. Box 10294 Peoria, Illinois 61612-0294**

Let us know your areas of Interest

(check all that apply)

_____ Field Trips

_____ Help with Gem Show

_____ Lapidary Workshop

_____ Articles for Newsletter

_____ Mineral Meeting

_____ Yes I'd be happy to present a program at the meeting.

Topic: _____

_____ Other (please describe) _____

Who we are...

The Geology Section of the Peoria Academy of Science is dedicated to the study of all fields of the Earth Sciences, including Geology, Mineralogy, Paleontology, Conchology, and the Lapidary Arts. Educational programs relating to some aspect of the earth sciences are presented at the monthly meetings. Members participate in field trips to collect minerals and fossils and hold workshops to do in-depth study of specific topics.

Crystal Lines, the official publication of the Geology Section, contains interesting and informative articles on a variety of earth science topics as well as news of club events. It is printed every other month (six times per year) and is sent to all paid-up members.

Each year the Geology Section holds its Gem, Mineral, and Fossil Show. It is an opportunity to share our interest in the earth sciences with the general public through displays, games, and conversations. A variety of items relating to the earth sciences are sold at the show with proceeds going to support club activities.

We welcome new members and encourage anyone who has an interest in the earth sciences to come to our meetings.

Meetings

**4th Tuesday of each month
(except September & December)
7:00 P.M.**

CILCO building
Pioneer Park Facility
8420 N. University, Peoria, Illinois 61614

2010 Club Officers

President.....Dave Fitch
Vice President.....Jim Travis
Secretary.....Pam Cramer
Treasurer.....Georgia Hoggatt

Annual Gem, Mineral & Fossil Show

4th Saturday and Sunday of August

Show Times:

**9am - 5pm Saturday
10am - 5pm Sunday**

For more information call 2010 Co-chairmen:

Jim Travis 309-645-3609
Dave Hoggatt 309-678-7306

Useful Tools



Goggles, Drinking water, Gloves, Sturdy shoes

Pick hammer

3# Hammer

Assorted cold Chisels

Newspapers for wrapping Specimens

5 gal bucket for carrying specimens

Small Containers for Specimens

Pointed Shovel

Pry bar

Field book for Identifying minerals

** For those hopelessly affected: a crane and a dump truck**

MOHs Scale of Hardness

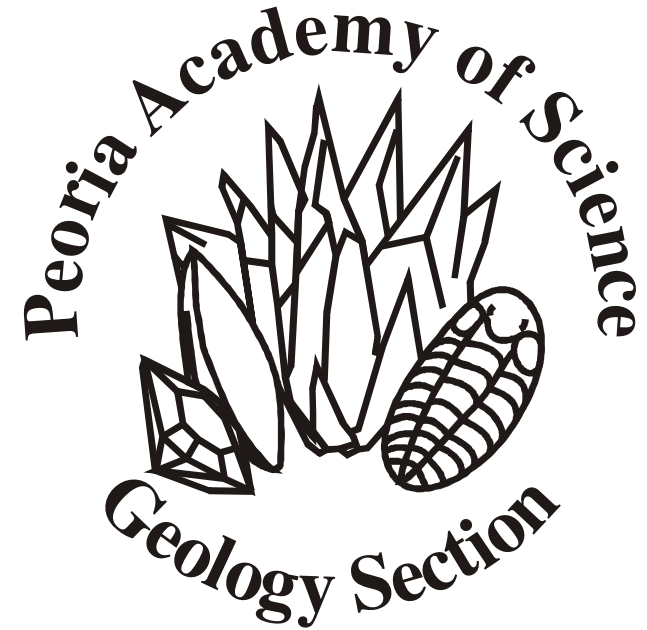
Mohs Index	Rock	Can be scratched by
1 (softest)	Talc	
2	Gypsum	Fingernail
3	Calcite	Copper coin
4	Fluorite	
5	Apatite	Pocket knife
6	Orthoclase	Steel file
7	Quartz	
8	Topaz	
9	Corundum	
10 (hardest)	Diamond	

Geology Glossary of Terms

- Basalt:** A dark-colored, extrusive igneous rock.
- Bedrock:** A fixed rock formation, which may be exposed to view or covered by soil, vegetation, or sediments.
- Breccia:** A sedimentary rock made up of large angular fragments.
- Crystal:** A solid substance that has a well-defined internal order and a characteristic shape.
- Dolostone:** A type of sedimentary rock consisting chiefly of dolomite (magnesium carbonate). It is usually formed by chemical precipitation.
- Extrusive rock:** A type of igneous rock that forms from magma after it has erupted onto the surface of the earth.
- Field guide:** A picture book, easily carried on trips, that helps identify minerals, rocks, fossils, or other objects or creatures.
- Foliation:** The layer like alignment of crystals in metamorphic rocks.
- Gneiss:** A metamorphic rock that shows foliation in the form of bands of light and dark crystals.
- Halides:** One of the mineral chemical groups containing halogen. Ex: rock salt, fluorite.
- Igneous rock:** Rock formed by magma cooling to solid state.
- Intrusive rock:** A type of igneous rock formed by magma that solidifies underground.
- Magma:** Molten rock beneath the earth's surface.
- Metamorphic rock:** Rock that is formed when sedimentary or igneous rocks are altered (but not completely melted) by geologic forces.
- Mineral:** A naturally occurring, nonliving, crystal-forming substance.
- Oxides:** One of the mineral chemical groups containing oxygen. Ex: bauxite, cuprite, and magnetite.
- Phosphates:** One of the mineral chemical groups. Ex: apatite and turquoise.
- Quartzite:** Metamorphosed sandstone.
- Schist:** A type of common metamorphic rock that shows foliation.
- Sedimentary rock:** Rock formed by the accumulation of rock particles or the remains of animals or plants, or by chemical precipitation.
- Shale:** A type of sedimentary rock, formed by the accumulation of clay particles.
- Silicates:** One of the mineral chemical groups. Ex: mica, feldspars, quartz, talc, and garnet.
- Streak Plate:** A piece of unglazed porcelain used to determine the color of mineral streaks.
- Sulfates:** One of the mineral chemical groups. Ex: gypsum and barite.
- Sulfides:** One of the mineral chemical groups containing sulphur. Ex: cinnabar, pyrite, and galena.

Fossil Glossary of Terms

- Ammonite:** A type of extinct cephalopod mollusk that had a shell marked with sutures. Especially common in the seas of the Mesozoic Era.
- Arthropod:** A member of a large group on invertebrate animals which includes trilobites, crabs, insects.
- Brachiopod:** An invertebrate sea animal that has two valves that are not close copies of one another.
- Carbonization:** The type of fossilization that occurs when an organism's tissue is reduced to a thin layer of carbon. Many plant fossils are preserved in this way.
- Cast:** A fossil in which the original organism has been dissolved away and replaced with rock material. It often resembles the structure of original organism.
- Cephalopod:** A type of mollusk that includes forms common in the fossil record. Ex: ammonites and squids.
- Concretion:** A round or oblong stone nodule that often contains a fossil at its center.
- Crinoid:** A plantlike sea animal; a type of echinoderm. Also called sea lily.
- Echinoderm:** A type of invertebrate sea animal. Ex: starfish, sea urchins, crinoids.
- Fossil:** The remains of a past plant, animal, or other living being, found preserved in the earth's crust.
- Index fossil:** A fossil that helps to determine the identity or age of a particular rock unit.
- Invertebrate:** An animal that does not have a backbone. Ex: arthropods, mollusks, brachiopods, echinoderms.
- Mold:** The impression left in surrounding rock by a shell or other organic structure.
- Mollusk:** A very widespread type of invertebrate animal common in the fossil record. Ex: Cephalopods and gastropods.
- Paleontology:** The branch of geology devoted to the study of ancient life-forms, as revealed by fossils.
- Paleozoic:** the second of four eras of the geologic time scale.
- Pelecypod:** A type of mollusk that has two valves that usually are close copies of one another. Ex: clams and oysters.
- Placoderm:** A type of early armored fish that was common in the Devonian Period of the Paleozoic Era.
- Suture:** A marking, often resembling a complicated wavy line found on an ammonite shell. The suture is the line along which the wall of a chamber meets the wall of the outer shell.
- Trilobite:** An extinct type of arthropod sea animal, very widespread in the fossil record of the Paleozoic Era.
- Valve:** A shell part that helps to enclose the soft tissues of brachiopods, pelecypod, and other invertebrates.
- Vertebrate:** An animal that has a backbone. Ex: fish, reptiles, and birds.



Geology Section

Peoria Academy of Science

www.pasgeology.com

An Affiliate of the Midwest Federation of Mineralogical Societies

