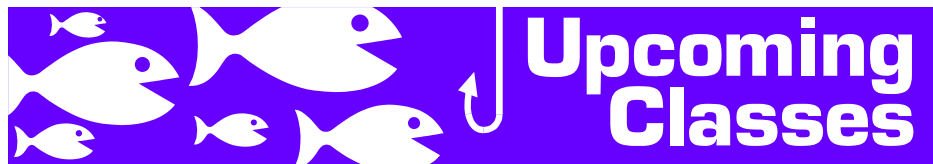


Pebble Pups Program 2011-2012



Pebble Pups meet the **third Tuesday** of Each Month in the Academic School Year
 Time: 6:00 p.m. to 6:45 p.m.
 Place: Lake George Community Center

Month	Class Title	Topics	Instructor
September	Building a Collection	Review building a collection and the different things that can be used: perky boxes, riker mounts, larger cases, crazy things from a thrift house that might look nice. Pebble Pups will enter a case jointly and some separately in the Denver Gem Show. On-line info at www.denvermineralshow.com .	Steven Veatch
September	Field Trip Sept 17	Denver Gem and Mineral Show	Steven Veatch Julie Shimon
October	Field Trip Oct 8	Red Rock Canyon Open Space. We will learn about geocaching as it is all about being hands on and exploring the outdoors. Learn about GPS, basic maps. We will look at sedimentary rocks, soil formation, and faulting. 	Julie Shimon Steven Veatch 
October	Field Trip Oct 16	Wilkerson Pass where Pebble Pups can collect a suite of metamorphic rocks and nice magnetite crystals.	Steven Veatch Shelly Veatch
October	Igneous Rocks, the Starting Point?	We'll talk about igneous rocks, both the ones that come out of volcanoes as well as those that harden underground. We'll talk about volcanoes in Colorado plus famous volcanoes of history such as Vesuvius, Mt. St. Helens or the famous volcanoes of Hawaii.	John Rakowski



November	Sedimentary Rocks and How They Reveal Geologic Time and Past Environments	Discussions of erosion, transport and deposition. Concepts of Superposition and Uniformitarianism will be introduced. Discuss use of sedimentary rocks to interpret ancient environments and the time relationships of rocks. Perform sedimentary bedding experiment. Mineral of the month: Chalcedony	John Rakowski
December	Common Metamorphic Rocks	From your previous classes about igneous and sedimentary rocks, you have developed a basic understanding of the rock cycle. This class will cover the last major rock type. Metamorphic rocks can form from either of the other two types (as well as from older metamorphic rocks), and so they have a wide variety of mineral compositions and textures. This group includes such useful materials as marble, slate, and the source rocks for several valuable minerals (including garnet, talc, and corundum).	Dr. Bob Carnein
January	Fossils & Dinosaurs	Activities include using real data collected in the field, studying dinosaurs, and how fossils allow students to look at the Earth's past. Erosion and deposition will be discussed. How to collect, prepare, and preserve fossils will be discussed. Pebble Pups will reconstruct ancient climates and ecosystems based on selected fossils. Working with a complete T Rex skeleton will be part of a lab exercise.	Steven Veatch
February	Minerals and how to identify them.	Most common minerals can be recognized by doing a few simple tests or observing some basic properties. We will focus on the minerals of the Mohs hardness scale to study hardness, streak, cleavage, and a few special properties, including magnetism, reaction to weak acids, and solubility in water. All of these properties can then be used to identify other common minerals.	Dr. Bob Carnein
March	Exploring Caves	How caves are formed. Rocks and minerals found in caves will be discussed. Fossils and archaeological artifacts found in caves will be featured. Mineral of the month: calcite. Discussion on how to prepare a pebble pup collection for the show.	Steven Veatch
March	February X Field Trip	There will be a Saturday field trip to the Cave of the Winds .	Steven Veatch

Lake George Gem and Mineral Club: Pebble Pup Curriculum 2011-2012



April	Basic Map Skills	This session will work on how to use maps, why they are important, and how to know where you are when you find a great fossil or crystal pocket so that you can come back next year to work on your discovery.	Dan Alfrey
May	Lapidary arts	Show a tumbler and discuss how it works with grit and polish. A rock saw will be demonstrated and geodes cut	Dan Alfrey Steven Veatch

For more information, possible updates and/or weather cancellations please see our club web site at: www.LGGMclub.org or call John Rakowski, president, at (719) 748-3861

The **Future Rock Hounds of America Program**, sponsored by the American Federation of Mineralogical Societies, is an important part of the Lake George Gem and Mineral Club Pebble Pup program. All pebble pups are urged to participate in the program and earn merit badges. Instructions for earning each merit badge are on the following blog:

<http://pebblepups.blogspot.com/>

Pebble pups that have an interest in a deeper dive in earth science projects are urged to work with Steven Veatch, who can supply individual projects to pebble pups where they will learn basic research, science writing, and experience the excitement of having their research published. Several of the pebble pups have published some of their work on the pebble pup blog.

Lake George Gem and Mineral Club Pebble Pup Program

- Program Chair: Steven Veatch (719) 748-5010 or steven.veatch@gmail.com
- Instructors:
- Steven Veatch
- Dr. Bob Carnein
- John Rakowski
- Dan Alfrey

