

Eaton Canyon field trip for teachers

October 10, 2009

Met at Pinecrest entrance, Wilson Toll Road

Parking on Crestview

Alan Chapman

Next time:

Name tags

Magnifiers, string, scissors

Hammer

Only three teachers showed up

Kelly Eguchi, 4th grade, Don Benito, mrseguchi@sbcglobal.net

Barbara Van Dusen, 6th grade, (Longfellow or Roosevelt), bvandusen33@pusd.us

Mary Ann George, 4th grade, (Roosevelt or Longfellow), mgeorge14@pusd.us

Tell beforehand:

Wear closed toe shoes, long pants, hat, light colored clothing

Bring sketch pads

We bring:

Bring water, power bars, trash bag, 1st aid kit

silly putty

magnifying glasses for all kids (5 – 7 x)

Preliminary discussion:

Poison Oak

Rattle snakes

Activity on igneous rock and crystal size

Some questions:

Would you find fossils here?

Why are some rocks angular and some rounded?

What made this canyon?

How do we know it wasn't a glacier?

How do we know it wasn't a volcano?

Why does water from waterfalls not reach the lower stream?

Ideas:

Find stories in rock areas

Metamorphic rock – like taffy

Garnet – birthstone for January

Master fault near parking lot?

One face of the rock is smooth and red; this is the fault, polished, see grooves that tell you direction

One fault is linear and vertical

Gneiss was formed like pulling taffy

Notes from the hike:

We entered the Wilson Toll Road.

Walking through alluvium, from breakdown of rocks.

Saw "Diorite" – dalmation rock

Igneous on right – solid, heated to melting by volcano.

Youngest rocks here are Jurassic – 100 million years old, where here when dinosaurs were here

Teacher asked for a good demo to show how rocks are weathered.

Alan showed them the triangle for inter-conversion of the three types of rocks:

Metamorphic

Igneous

Sedimentary

Which type is most common? Not clear – could be igneous or metamorphic.

Thrust fault. Sierra Madre fault. We are on the hanging wall. Pasadena is on the foot wall.

Strike slip fault. San Andreas. We are on the Pacific plate, Victorville is on the N American plate.

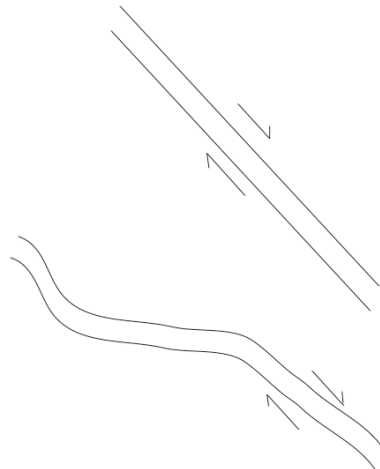
Normal Fault: extension

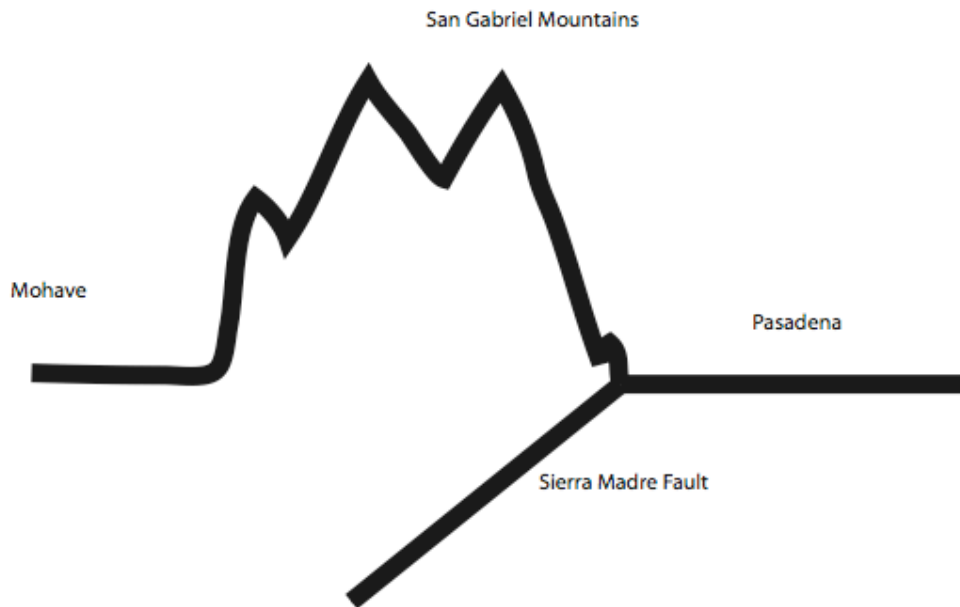
Fault crush zone – weathers easier, see bushes growing

Dikes – light colored cross cutting the dark. Intruded in on the dark fabric

Formation of San Gabriel Mountains – the strike slip San Andreas fault is not linear.

There is a bend. So as it slides, it squeezes. Pressure builds, the Sierra Madre fault formed. The San Gabriels are at the bend.





It was hard going for one of the teachers. Stream crossings, rock scrambling.

On the way out saw big group of college kids with Professor Lawford Anderson “These mountains are being built up by forces and torn down by forces; which is faster?”