A Family Oriented Tour

Although everything at Griffith Observatory is interesting, there are just some exhibits you must not miss with your family.

Keck Foundation Central Rotunda

Begin and end your visit at the Foucault pendulum which resides on the Classic/Historic level of the building. It is a 240 lb brass sphere suspended from the ceiling by a 40 ft long wire. It is in continuous motion: back and forth, back and forth. Watch this until you see one of the pegs resting on the pit floor get knocked down.

As it swings from one side to the other, notice the numbers on the pit floor and the brass ones higher up on the parapet. Which numbers are they? Try and remember them….

The last thing you should do before you leave the Observatory is return to the pendulum and see which numbers are now in the path of the sphere.

Ann Marie and Jack C. Wilder Hall of the Eye

Ask a Museum Guide when they will next be doing a Tesla Coil demonstration and be sure to be there then. These crowd pleasing demonstrations only happen once per hour and show impressive amounts of electricity. The Museum Guide will explain what all the "lighting" and noise is about.

A few feet away from the Tesla Coil is the electromagnetic spectrum exhibit. Look up and locate the infrared camera/monitor. Stand right below it and look at yourself. Is your nose cold? Your hands? Colder parts will appear darker. Run your foot along the floor and watch what happens. Hold a piece of paper in your hands for few seconds. Take your hand away and hand the paper up to the monitor. Do you still see your hand? This camera picks up your body's heat signature. It cannot see through glass, so if you are wearing glasses, you will not see your eyes.

Before leaving this room, be sure to check out the replica of Galileo's 400 year old telescope. Notice the opening at the end of the scope about the size of a dime! This is called the aperture. Today we use telescopes with MUCH larger apertures and we can see MUCH better and farther. The Zeiss telescope on the roof of the building has an aperture about the size of a steering wheel or 12" in diameter. In which scope do you think you could see better? If weather permits and you are here in the evening, look through the telescope located on the roof.

Ahmanson Hall of the Sky

BUT, if you are visiting the Observatory during the daytime, you must look at the Sun in our solar telescope. It is called a triple beam coelostat and offers three different views of the Earth's star. The most noticeable view is in what looks like a large television screen at the end of the Ahmanson Hall of the Sky. You are looking at the big white ball of the Sun through a white light filter. Recently, solar activity has increased and you can see

the freckles of sun spots. These dark looking areas are actually cooler that the rest of the Sun!

To the right of the coelostat screen is our *spectroscope*. The Sun contains many elements and this exhibit shows you the fingerprints of those elements in the form of spectral lines.

To the left of the white light image is the *spectrohelioscope.* Here the Sun is seen through a filter called a hydrogen alpha filter. In the eyepiece, the Sun will be red. See if you can see any *prominences*, which will look like whiskers around the edges. These are pieces of plasma some measuring hundreds of thousands of miles long.

Be sure to ask a Museum Guide to talk to you about the Sun. Our closest star is fascinating.

Adjacent to our solar display is the element table which contains samples of most of the elements. These are the building blocks of life. Try pushing the interactive buttons on the display and notice the similarities in the elements found between humans and stars.

Edge of Space

Have you ever held a space rock??? The Observatory has a meteorite at the Edge of Space that you are encouraged to hold; just ask at the Information Desk right by the Meteorite exhibit. It is only a small part of what came down to the Earth about 50,000 years ago in the Arizona dessert. There are also 2 additional larger pieces from the same event on display at the Edge of Space, as well as some meteorites from the moon and Mars. Please touch them.

Don't forget to try out the interactive program on the same wall as the meteorite exhibit. With this you can see what impact on the Earth or other planets meteorites and other flying space objects have when they land.

Have you ever seen a Moon rock up close? Next to the large Moon globe, Griffith Observatory is proud to display a rock that was loaned to us by NASA and brought back to the earth by the Apollo 14 astronauts.

As you descend into the **Gunther Depths of Space,** notice the back wall. It is a gigantic picture called The Big Picture and is 152 feet long and 20 feet tall. It is an image of mostly stars and galaxies of a very small piece of the sky. Walk up very close and notice the large and small blurry swirling objects. These are all galaxies. The second thing you should notice is the color of the objects in the picture. It is very subtle, but some are bluer, whiter or redder. The color of the object can tell you which is older or younger. As a general rule, the redder objects are cooler and older.

Other fun things to do in this area are to weigh yourself on each planet. On Jupiter, you will be REALLY heavy and it is the most massive planet in our solar system, but can you find out why you weigh so much? Hint: notice how much you weigh on each planet relative to their size and mass.

Last, but not least, if you feel like spending a bit of energy, make an earthquake. There is a seismograph in the Earth alcove. It is super easy: jump, jump, jump and watch the needle move.