



**'IMILOA**

Astronomy Center of Hawai'i

## **Educational Highlights August-September, 2008**

<b>K-12 Student Field Trips</b>				
<b>Date</b>	<b>School / Youth Group</b>	<b>Location</b>	<b>Grades</b>	<b>Student #</b>
8/5/2008	Gordon & Betty Moore Grant/Waikoloa Elementary	Kona	3/4	147
8/7/2008	Moore Grant/Paauilo Elementary	Paauilo	3/4	59
8/12/2008	Moore Grant/Kohala Elementary	Kohala	3/4	120
8/14/2008	Moore Grant/Pahala Elementary	Pahala	3/4	38
8/14/2008	Moore Grant/Na'alehu Elementary	Na'alehu	3/4	90
8/14/2008	Moore Grant/Volcano School	Volcano	3/4	48
8/15/2008	Castle High School	Honolulu, Oahu	9-12	12
8/15/2008	Waipahu High School	Waipahu, Oahu	9-12	100
8/19/2008	Moore Grant/Waimea Elementary School	Waimea	3/4	184
8/22/2008	West Hawaii Exploration	Kona	3/4	27
8/24/2008	Hibiya High School	Japan	9-12	17
<b>August Total</b>				<b>842</b>
9/2/2008	Gordon & Betty Moore Grant/Parker School	Waimea	3/4	29
9/2/2008	Moore Grant/Kanu `o ka `Aina	Waimea	3/4	37
9/2/2008	Hawai'i Preparatory Academy	Waimea	3/4	39
9/4/2008	Moore Grant/Kealakehe Elementary	Kona	3/4	313
9/4/2008	Moore Grant/Connections	Hilo	3/4	51
9/9/2008	Moore Grant/Kahakai Elementary	Kona	3/4	182
9/9/2008	Moore Grant/Kalaniana'ole Elementary	Kona	3/4	59
9/16/2008	Moore Grant/Holualoa Elementary	Kona	3/4	135
9/18/2008	Moore Grant/Kea'au Elementary	Kea'au	3/4	257
9/23/2008	Moore Grant/Keonepoko Elementary	Pahoa	3/4	204
9/24/2008	Kamehameha Schools Kea'au	Kea'au	G-2	40
9/25/2008	Moore Grant/Mt. View Elem.	Mt. View	3/4	172
9/26/2008	Moore Grant/Kona Christian	Kona	3/4	38
9/30/2008	Moore Grant/Pahoa Elementary	Pahoa	3/4	90
9/30/2008	Moore Grant/Keaukaha School	Hilo	3/4	81
<b>September Total</b>				<b>1727</b>

## K-12 Student Programs

### Gordon & Betty Moore Grant Field Trips

In April of 2008, `Imiloa received a grant from the Gordon and Betty Moore Foundation in the amount of \$670,789 with the goal of bringing in 50% of the Big Island's schoolchildren to `Imiloa over the next two years. The grant will subsidize transportation, admission and lunch for K-12 schoolchildren who visit as part of a field trip and is in support of the mission of `Imiloa to teach the culture, history and scientific wisdom of Hawai'i's people and its connections to Western science, especially astronomy on Maunakea. During August and September 2,334 students in grades 3 and 4 enjoyed a specially designed field trip experience called "The Hawaiian Navigators." This field trip is standards-based and includes pre and post materials on our website for teachers to utilize with students in their classrooms. The response has been tremendous!

In order to encourage community support for education on the Big Island, the Moore Foundation's grant also contains a matching element. For every dollar given to `Imiloa, the Moore Foundation will match it 2 to 1. `Imiloa is working hard to raise the matching funds necessary to fulfill the grant and to expand the reach of the grant to enable all 100% of Hawai'i Island's K-12 schoolchildren to have an `Imiloa experience.

As part of this exciting news, `Imiloa is working to encourage the community's involvement and support of this initiative. We have developed a program whereby people can "Adopt a Student," "Adopt a Class," or "Adopt a School" with contributions going to the Moore Foundation match.



## Science Rocks! After School Program

Imiloa is pleased to announce it's new after school program called "Science Rocks!" The program, which offers 36 sessions, one each Wednesday that school is in session, during the 2008-09 school year, offers students fun, hands-on, minds-on experiences in a spattering of sciences from astronomy, physics, earth science, meteorology, biology, and chemistry. Math, technology, and engineering are integrated into the program highlighting geometry using Zome Tools, electronics and art using Pico Crickets, and various design challenges sprinkled throughout. Thus far, the students are having a great time, so much so that many of their parents stay with them to learn, and often students express the sentiment at the end of class that they "don't want to leave yet!" All activities are grounded in a solid background of STEM skills with an emphasis in critical thinking, creativity, and questioning. The ultimate goal of the program is to inspire these young people to see science everywhere around them and to possibly pursue a career in the sciences. This program was made possible by monies donated by the Earl & Doris Bakken Foundation.

### Comments:

**Student:** "I learn more science here in one session than I do at school in one semester."

**Parent:** "My son doesn't want to leave. He has so much fun here and learns so much!"

**Parent:** "This program is an amazing support for homeschool families. The equipment, technologies, and instruction make it the perfect complement to home study!"

**Parent:** "My daughter loves the after school program. She has so much fun and I am delighted that she has an opportunity for science enrichment in an after school program that works with my schedule."



*Integrated art and technology with  
Pico Crickets*



*Fun with magnets!*

## Family Programs

### Camp `Imiloa: Family Day Camp

On August 16<sup>th</sup> and 17<sup>th</sup> families were invited to share a weekend day camp themed around the same topic as `Imiloa's very successful weeklong day camp offered in June of 08: "Return to the Moon: Failure is not an Option!" In this slightly shortened version of the camp students in grades 2-5 attended with one adult for a shared experience learning about many of the same topics highlighted in the first camp (June 08).



#### *To Be an Astronaut: What does it take?*

Student-adult learning teams explored this question together, also taking a virtual "Field Trip to the Moon" in `Imiloa's planetarium. At right, students learn about the Hawaiian Moon Calendar and how it is used for planting and fishing, lunar topography using maps, colored paint and 3-D glasses (pictured below).



#### **Headed for the Future...**

Hey, we're headed for the future  
Give us some room  
We're gonna build a new world...

Students practice their song for the graduation ceremony!



## In Development...

### Backpack Adventures...

## Start Here!



## Adventure Tools

Are you ready for a backpack adventure? Do you want to explore new places and discover new things? You'll need to keep your eyes open! Wait! Maybe there'll be places where you will close your eyes and just listen. You'll always get to use your imagination! Adventure Cards and a map lead you to different adventure sites. Your exploration tools include a flashlight, a telescope, a magnifier, colored pencils, watercolors, paper, a UV detector. Look on the *Read This !*Card and follow the rules. Have a great adventure!

See attached for the "Draft" of this exciting program to be introduced first to the general public for parents and children, and later for students in grades 3-6. It is designed to engage children in the practice of science and promote curiosity about the Universe and their place in it. The Adventure Cards involve children in activities that represent learning through direct experience and developing ways of knowing.