Celebrating Mauna Loa Observatory's 50th Birthday!

Mauna Loa Observatory's 50th Birthday (Anniversary)

Hilo, Hawai'i

28 June 2006, Wednesday

This report describes the preparation and events of the Mauna Loa Observatory's 50th Birthday Celebration. The day long event occurred on June 28th 2006, at the Kilauea Financial Plaza located at 1437 Kilauea Avenue. Hilo, Hawaii.

The report is divided into six parts:

1. Preparation
2. Video Conference
3. Pre-school Visitation
4. Open House
5. MLO Staff Party
6. Post Preparations

Part 1: Preparation

With less than two weeks notice to prepare for this event, family members and friends were recruited to help prepare for the massive day long event. The scheduled events for the day were planned as follows:

6-9am	Set-up activity centers, prepare demonstrations and food.
9-9:45	Informal video conference with Boulder and MLO
9:45-12	Preschool Outreach Visitation
12-1	Lunch
1-3	Open House
3-8	Clean up, MLO staff and family dinner.

Videoconference

The video conference set up was handled by Preston Sato (MLO) and James Salzman (Boulder). Days earlier various programs and configurations were tested to obtain the best results. The video conference was held in the Hilo office's reception room while the Boulder site was held in the main conference room in the David Skaggs Building.

Setting up Activity Center Area

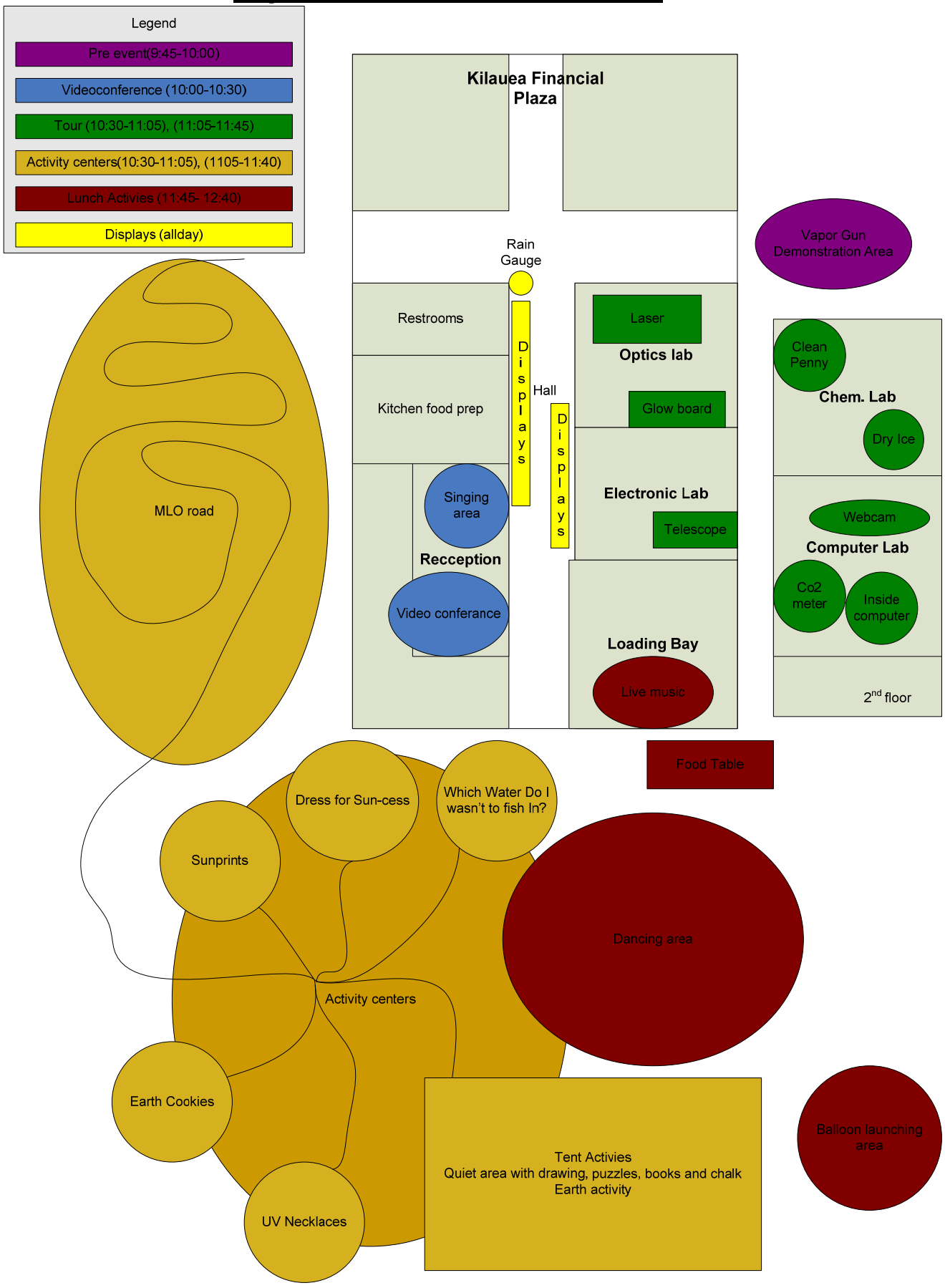
The planning and coordination of the preschool outreach visitation was done by Tracie Kuniyuki (Darryl's wife). Creation of the centers was done by Tracie, Leslie, Darryl, Dawn Fukumura-Sawada (Paul's wife), Jessica Pajo and Carissa Pajo (Leslie's daughters). Two teachers (Tracie's friends) were recruited to man the activity centers: Elsie Miyazono (a Connections Charter School 5th grade teacher), and Julie Ann Hiramoto (a Kea'au Elementary 4th grade teacher). Permission to close off the back parking lot had to be cleared with Nancy Cabral (Day Lum), Dr. Takase (owner of building), and Merrill Lynch.

In the early morning hours of June 28th, David and Darryl move the government cars to block off the rear parking lot of the building. Paul, David, Darryl, and Preston set up the two tents that were used for the quiet area activities. The activity centers were then set up by MLO staff, Tracie, Dawn, Johnny Chin, Jessica, and Carissa.

Setting up of Tour Activities

The MLO tour demonstrations were planned and implemented by the MLO staff which was held in the chemistry lab, computer lab, electronics lab, and optics lab. Alan and Aidan set up and manned the chemistry Lab projects, which included a dry ice and penny cleaning demonstration. Alan was able to get dry ice free of charge from Gaspro, the local distributor who supplies us with various gases. Darryl and Steve set up and manned the computer room activities and the balloon release. The computer room had a carbon dioxide meter, web cameras and an open computer. Richard Mitsutani from the Hilo weather service office donated weather balloons. Trevor, Nimmi Sharma (visiting professor from Central Connecticut State University), and John set up the laser demonstration and telescope. Trevor manned the laser display and John manned the telescope. David and Darryl set up the glow board which was manned by Nimmi. (See map on next page for layout).

Layout of Preschool Activities



Food preparations

Shopping for food and supplies were done by Darryl, Tracie and Leslie. Hot dogs were cooked by Verne Yoshinaga (Alan's wife). Meat and cheese platters were done by Kendal Lyon (John B's wife) and Carissa. Tracie baked the two sphere birthday cakes, the cookies for the "Earth cookie" center. Leslie made cream puffs, rum cake, ambrosia salad, mochi, and put together the fruit and veggie platter. Dawn made spinach rolls. Debbie Kenui (ASiAA) kindly donated a whole tray of butter mochi, which she dropped off early in the morning. What a delightful surprise!

Entertainment

Steve graciously took on the charge of entertainment. He recruited two of his friends, guitarist Dean Perkins and mandolin player Rick Schute. Kendal and Steve rounded off the band with a fiddle and banjo respectively.

During the preschool visit, music was played in the loading bay. The music was then moved into the reception area, during the open House.

Displays and Decorations

Leslie created and ordered the banners which were place outside the building (doubling as our sign) and in the reception room for the video conference. The banners were hung up by Paul. Decorations were also put up by Jessica and Carissa. Preston designed and ordered the balloons. Steve and David blew up the balloons and placed them throughout the office.

50th anniversary banner.

Banner in front of the building.


Palm tree and monkey, MLO balloon.

Framed displays of the “1951 Summit Observatory” and “1956 Dedication” was done by Leslie and Carissa.

Table displays were the items used for the “Earth Day Fair” in April.

Preston prepared the video for the video frame(below).

It continuously played a CBS news report about MLO.

An old polished copper rain gauge displayed in the hall

Part 2: Video Conferencing (9-9:45am)

The video conferencing with the main office in Boulder included a live informal chat with John Chin (retired MLO employee), Bernard Mendonca (retired, former MLO employee), and other MLO staff with the Boulder audience. We also telephoned Judy Pereira (retired MLO secretary) from her home in Las Vegas. Photo albums were left on the coffee table for reminiscing. Boulder's images were projected on a screen. Local footage was shown on the television for the local audience.

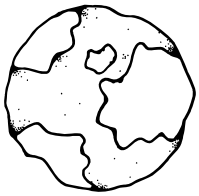
James Salzman communicating from Boulder.

Bernard talks with Judy Pereira on the phone. Mark Goldman, former MLO post-doc, watches.

Lisa Wallace(Mcpherson) and Cynthia Chow(Aki), former MLO staff looks through photo albums.

Part 3: Pre-School Outreach Visitation (9:45-12:40)

YWCA Developmental Preschool Visitation Itinerary:



- 9:45 – 10:00 Demonstration of smoke ring cannon.(Jessica)
- 10:00-10:30 Children sang 5 songs (video conferencing with main office in Boulder). John gave an overview of MLO and did atmosphere demonstration.
- 10:30-11:05 Half of the pre-school group went on a tour (indoor). The other half of the group proceeded to the MLO activity centers (outside).
- 11:05-11:45 Switch tour and MLO centers groups
- 11:45 Lunch Activities include launching a weather balloon, entertainment by Steve and band; and eat lunch (MLO will provided hot dogs, juice, cookies, earth cake; preschool supplemented chips, carrots, and cut oranges).
- 12:10 Preschool and MLO dance
- 12:40 Preschool departure.

Personnel at station	**PreSchool Visitation Activities**
Jessica	Smoke ring demonstration
Darryl John	Introduction of staff and Boulder video conference. MLO overview; talk about atmosphere
Tour (inside)	
John	Be tour guide for inside building, then telescope activity in electronics lab
Aidan, Alan	Dry ice in chem lab , penny demo.
Darryl, Steve	Computer lab with web cameras. Carbon Dioxide meter, open computer.
Trevor, Nimmi	Optic lab with laser and glow board
Activity Centers (outside)	
Johnny, David	"Dressing for Sun-cess": dress cardboard figures appropriately for outside activities
Paul, Dawn	"Which waters do I want to fish in?" : ozone protected waters; no ozone protected waters. Kids decided which tub to fish in. Scoop out animals (no hands) and choose one to keep.
Jerica, Celeste(YWCA)	Tent Activities (Quiet Area) : Earth puzzle and library books on mat area; chalk drawing on asphalt
Elsie, Julie Ann	Decorate earth cookies: sprinkle the ozone in the atmosphere (no eating the cookies; it's for lunch)
Tracie, Les	UV Necklace: string 5 UV beads. Wear as a necklace.
Carissa, Jess	Sun Prints : importance of sunscreen. Label paper. Kids paint with sunscreen onto sunprint paper.
Other	
Preston	Videoconferencing and Documentation (all day)
Steve, Darryl	Balloon launch
Steve, Kendal, Dean	Play music
John	Lead Dancing

Pre-School Pre-Tour Entertainment (9:30am - 9:45am)

The pre-school arrived a half hour earlier than expected. They gathered outside of the building's lanai to await the event. To kill some time, Jessica Pajo demonstrated the vapor cyclone cannon, which shot swirling rings of vapors.

The children and adults enjoyed the demonstration until it was time to go in!

The Pre School Sings!

Darryl introduced the MLO staff to the preschool visitors and explained how the videoconference with Boulder worked. The children were amazed at how they could actually see and hear someone so far away.

The preschool sang five songs for the Hilo and Boulder audience listed below:

1 "Good Morning-Aloha Kakahiaka"
2 "Aloha I Ke Kai"
3 "All Around Hilo"
4 "Make New Friends"
5 "Happy Birthday to Mauna Loa Observatory"

Happy Birthday MLO!

John talks about MLO and the atmosphere

John takes half of the group on a tour of the building. He begins with an explanation on the rain gauge.

The TOUR (10:45-11:15 ,11:15-11:45)

The First Stop: The Chemistry Lab!

Dry Ice Extravaganza!

What does it teach? What is dry ice and what can it do? Show what safety precautions are taken when working with dry ice.

Description: Dry ice is placed in beakers with warm water. They are place in safe locations around the lab. A small piece of dry ice is placed in an empty tennis ball container. The container is closed with the lid. A few moments later the lid pops off the canister, flying into the audience.

Materials:

- Dry ice
- Beakers with warm water
- Empty tennis ball container and lid

Aidan describes dry ice and how to be safe when working with it.

Aidan demonstrates the dry ice cannon with the lid flying through the air.

Several beakers of dry ice in warm water were placed around the lab to provide a “mad scientist” atmosphere.

Copper Cleaner

What doe it teach? Science experiments can deal with simple ingredients that can be found in your kitchen. It also teaches the children why we need to wash our hands.

Description: Make a solution of ¼ cup white vinegar and 1 tablespoon of salt in a non metal container. Place 2 dirty copper pennies in the solution and watch the shine return. Then take them out and wash one of them while keeping the other one on a paper towel. The air will react and form a green/blue color on the penny.

Materials:

- Vinegar
- salt
- non metal container
- dirty pennies
- paper towel
- water for rinsing

Dipping the penny in the vinegar solution.

Children looking at the different pennies

(L to R) dirty penny, cleaned penny, penny which is oxidized with prolong exposure to vinegar solution.

Next Stop: The Computer Lab

Carbon Dioxide Demonstration

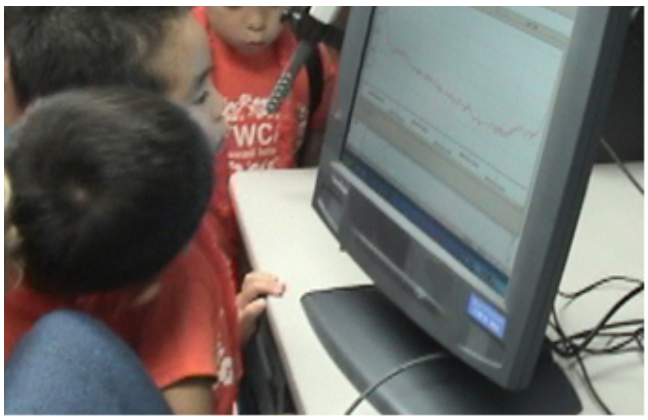
What does it teach? The children learn that their bodies produce carbon dioxide, which is the same gas found in soda bubbles, car exhaust, and dry ice.

Description: A CO_2 detector is hooked up to a computer that generates a graph showing the CO_2 concentration changing with time. The children were asked to blow on the detector and watch the trace on the graph increase. We also used balloons to show how CO_2 is formed, with 2 white balloons representing oxygen and 1 blue balloon representing carbon.

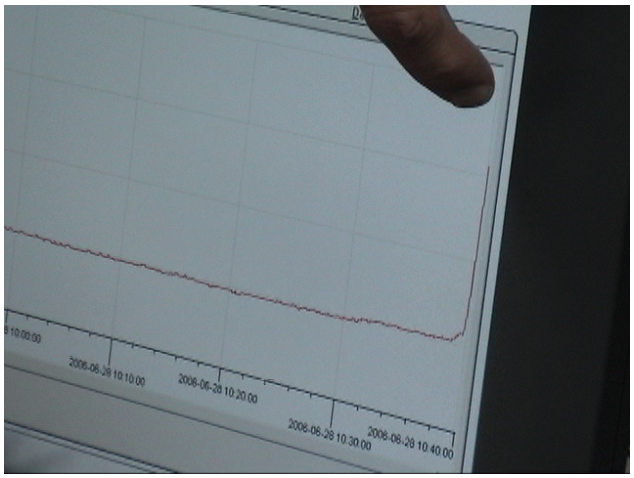
Materials:

- Carbon dioxide meter
- Computer
- 2 blue balloons
- 1 white balloon

Steve explaining the carbon dioxide meter.



The children blow on the sensor



Then immediately watch the carbon dioxide go up on the plot.

What's Inside of My Computer?

What does it teach? It shows the components of inside of a computer. The children learn the basic parts of the computer.

Description: A non-working computer is opened up and the parts removed. Parts removed were cpu, memory, hard drive, cd rom drive, motherboard. Children are allowed to touch and examine the items.

Materials:

- Various old parts from computers

Children see and touch inside of the computer. Learn the different components.

WEBCAMS: What Do I See?

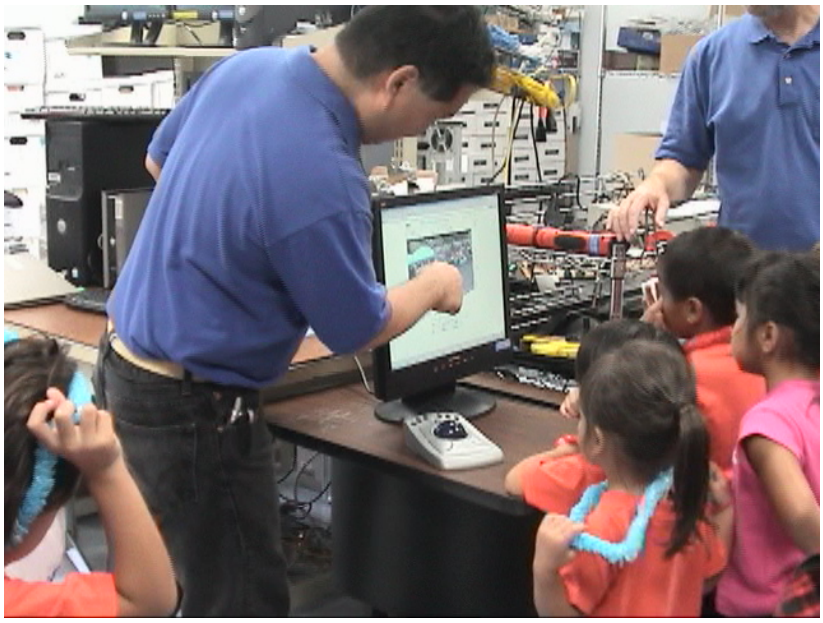
What does it teach? Images from far away can be sent over the network. Devices can also be control remotely.

Description: Children control one camera with a trackball to watch their classmates at the outside activity centers. The other camera is used to see them selves on the computer screen.

Materials:

- 1 fixed webcam
- 1 tilt, pan, and zoom camera
- 2 computers to display the images
- Network connection from camera to computers

Children look at themselves on the computer screen.



Darryl explain the webcam

Children look at their friends outside the building.

Next Room: The Electronics Lab

Telescope and Magnifying Glass

What does it teach? How lenses and mirrors work.

Description: Children get to look though a telescope and experiment with the magnifying glass.

Materials:

- telescope
- magnifying lens

John explaining function of a telescope

Looking through a magnifying lens.

The Last Stop: The Optics Lab

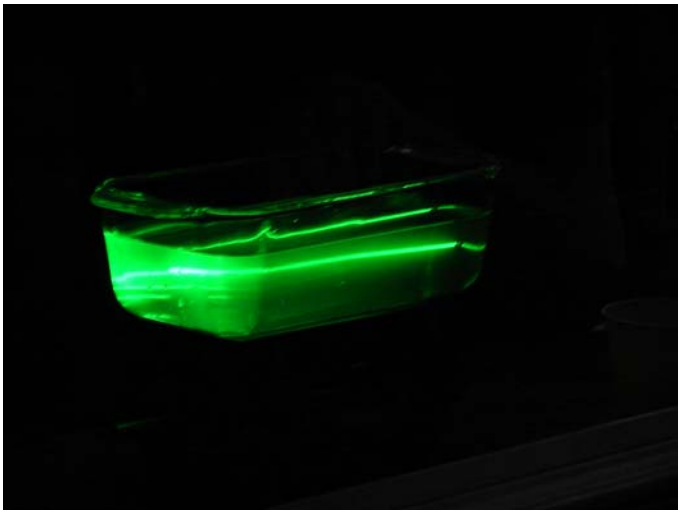
Laser Demonstration

What does it teach? It demonstrates the principle of particulate scattering with respect to light.

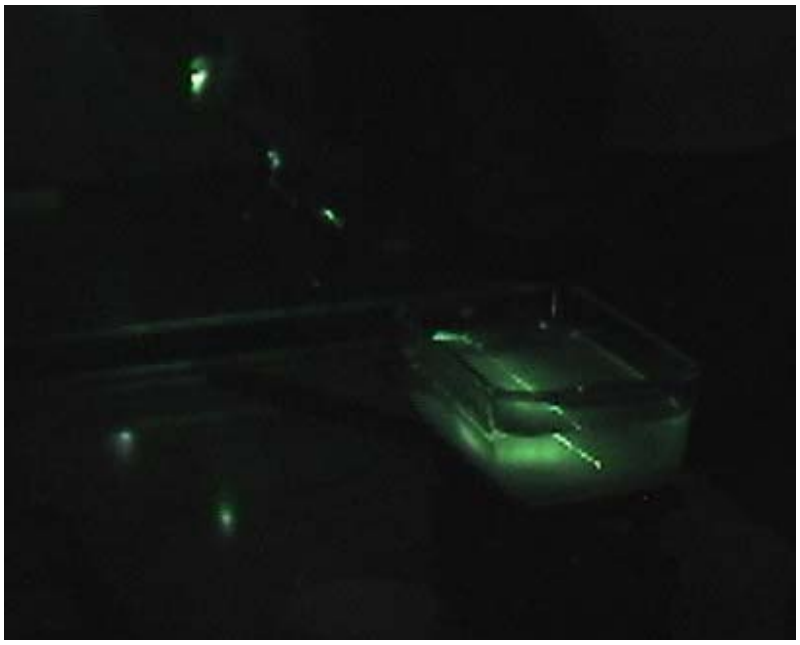
Description: The green laser and red laser pens are aimed at the air, the water, and the smoke. Laser brightness intensifies as the water is mixed with milk and the air becomes smoker. This method is compared to the lidar used at MLO

Materials:

- green laser pen
- red laser pen
- incense for smoke
- water
- milk
- clear glass container
- a dark room



Laser beam through water.



Laser scattering in air and water with milk

Trevor explains the laser.

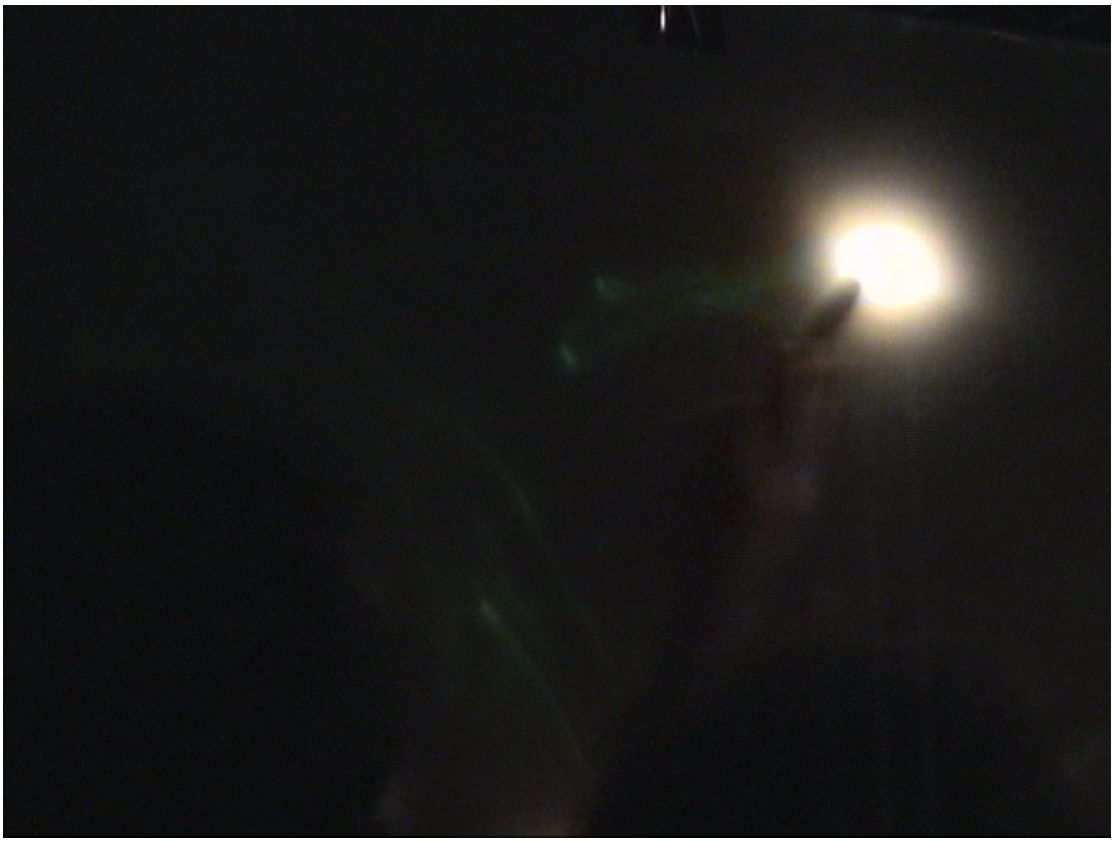
Glow Board

What does it teach? This shows that light energy can be transferred to another object.

Description: The flashlight pen is used to write on the glow board. Children can write and draw on it and watch their work glow in the dark. The glow board is a clear acrylic sheet with glow in the dark paint on the back side of the board.

Materials:

- glow board
- pen flashlights



Children write with the light pen.

Walk the MLO Road

The tour concludes with a walk down the "MLO road". The long and curvy path led to the activity centers in the back parking lot.

Down the curvy path ...

...to the activity centers!

The Activity Centers (10:45-11:15, 11:15-11:45)

Dressing for "Sun-cess"

Big Idea:

- I can protect myself from harmful UV rays.

The sun is powerful. Dressing myself well is necessary to protect my skin from the power of the sun.

This center is limited to four (two on each side) children at any given time.

Materials:

- bulletin board with people, clothes
- stickers
- 2 chairs
- (Johnny and David wore hats)
- Answer keys (used picture of correctly dressed child)

Procedure:

1. Dress cardboard children with directions from preschoolers.
2. When done, show children how "doll" should be dressed. If accurate, give children a sticker.
3. If not accurate, allow children to try again.

Thanks to EPA SunWise for Kids
www.epa.gov/sunwise/kids.htm

David Nardini assists a child.

John Chin encourages kids to make the right choices.

Earth Cookies

Big Idea:

- The Earth has an atmosphere.
- Ozone is in the atmosphere.

This center is limited to three children at any given time.

Materials:

- table, 2 chairs
- cookie for each child
- 2 containers of blue and green frosting
- butter knives (12)
- edible sparkles
- bowl
- a spoon
- wipes cut in half
- paper plates (12)

Procedure:

1. Talk to the preschooler as you do things ("We have to wipe your hands so they're clean").
2. Kid comes to your center. Using half a wipe, wipe both hands.
3. Tell children they'll be frosting the Earth, they won't be eating this now and they are helping to frost the cookies for everybody so they won't get their cookie back*. Layout one sugar cookie for the child to frost on one side.
4. Tell child we want to be safe from the UV rays so we'll be putting ozone in the atmosphere. Have child sprinkle (very sparingly) the ozone (edibles sparkles). You may even want the child to say "ozone".
5. Tell child we'll be eating the cookies at lunch. Collect cookie. No need to label because cookies will be served at lunch.

Elsie Miyazono and Julie Ann Hiramoto man the ”Earth Cookie center.

Tent Activities (Quiet Area)

This center is limited to twelve children at any given time.

Materials:

- 17 library books
- fence
- canopy
- earth puzzle
- chalk
- foam mats

Procedure:

1. Library books: Book should be treated with respect. Books should be stored in the tub.
2. Puzzle: puzzle should be put back in the box and covered at the end of the two center periods.
3. Chalk Drawing: A large earth was drawn. Children may color it in or make their own drawings on the asphalt ONLY. At the end of the first center period, drag the foam mats over the drawings to reveal a new earth.

Note: Limit may not be necessary. The first rotation went a long. Teachers used center to read to majority of children who were done with the other centers. Having a designated person to man this center with a vision of the earth chalk designs would have been advantageous.

Children coloring the Earth.

So many pieces!

Sunprint

Big Idea:

- I can protect myself

The sun is powerful enough to change the color of the paper. Sunscreen is necessary to protect your skin from the power of the sun.

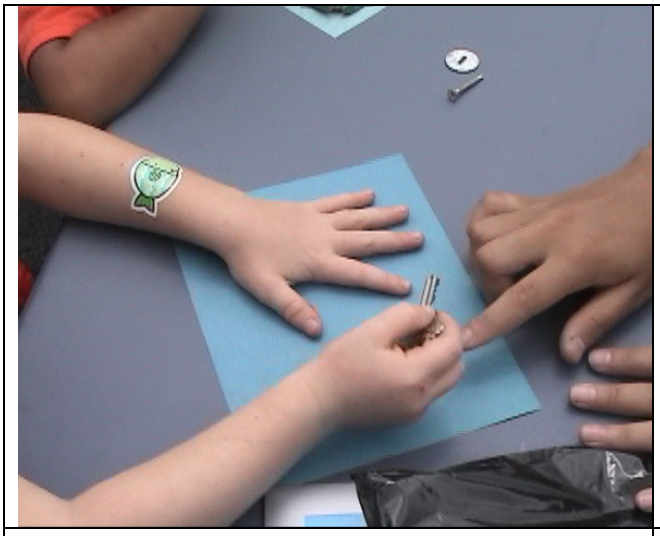
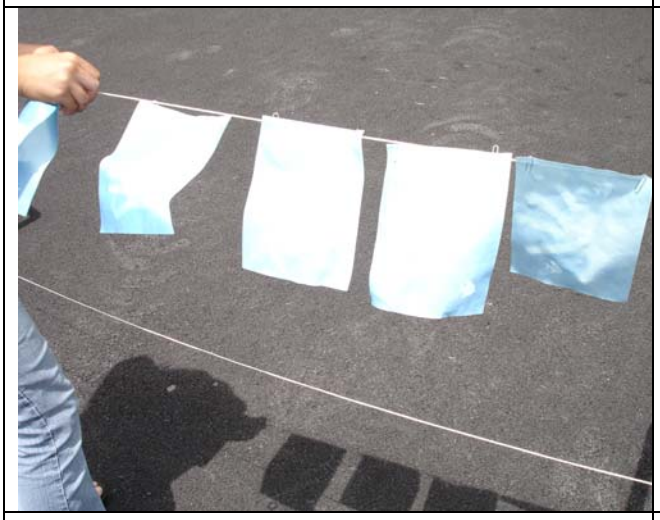
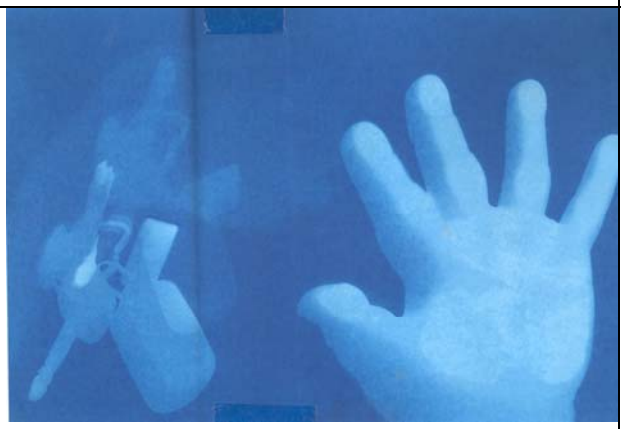
This center is limited to four children at any given time.

Materials:

- table, 2 chairs
- sunprint paper (cut in half)
- 2 trays for water
- drying area (string with paper clips)
- preprinted labels
- 2 object baskets (with 6 items)

Procedure:

1. Ask child for their name. Label the back of the sunprint paper.
2. Have child choose an object from the object basket.
3. Have child place hand and object on paper for one or more minutes (paper surrounding hand will fade
4. Submerge paper in water to stop process.
5. Tell child we'll send your paper to preschool tomorrow when it's dry.
6. Hang/place paper to dry.

	
Placing hand or object on paper.	Here's your sun print!
	
Hang to dry.	Sun print!

UV Necklace

Big Idea:

- I can detect UV, so I know when to protect myself.

The UV beads are sensitive to UV rays. They change from clear to colored (colors vary). Sunscreen and/or protective clothing should be used.

This center is limited to five children at any given time.

Materials:

- table, 2 chairs
- UV beads
- leather strips or ribbon
- containers (6)
- 6 mats to sit on

Procedure:

1. Tell child they'll be making a necklace that can help them tell if they should wear sunscreen or protective clothing.
2. Ask child what color they want for their necklace. Place strip or ribbon and five beads in a container.
3. Have child string beads.
4. Tie up when done.

Beads not in UV

Beads turn color in UV

Leslie and Tracie man the UV beads station.

Which Waters do I Want to Fish in?

Big Idea:

- Ozone is in the atmosphere.
- Good ozone protects us from getting sick.

Scientists have found UVB rays can cause depletions (decreased reproductive capacity) and deformities in animal populations. Ozone offers some protection from UVB.

This center is limited to five children at any given time.

Materials:

- 2 tubs
- water animals (small amount to be deformed by lack of "ozone" aka scissors)
- 5 scooping nets (there are three extra)
- fence

Procedure:

1. Gather your five children together.
2. Ask them to look at both tubs. The tub with the deformed animals is not 'protected by ozone'. The tub with the plentiful healthy animals is 'protected by ozone'.
3. Ask them which tub would you like to fish in? Guide their responses to the 'ozone protected' tub.
4. Give each child a net to scoop out the animals. No hands.
5. Of the animals the child scooped out, s/he may choose one to keep.

Note:

a. People manning this center need have a clear purpose of the center's intent—to compare two "waters" and decide the ozone protected tub is better to fish.

Deformities of the animals need to be accurate. See below for an example.

Deformed frog.

b. Perhaps there could also be a visual of the ozone above the tubs. Labeled tubs could also assist the learner in discerning the purpose of the center.

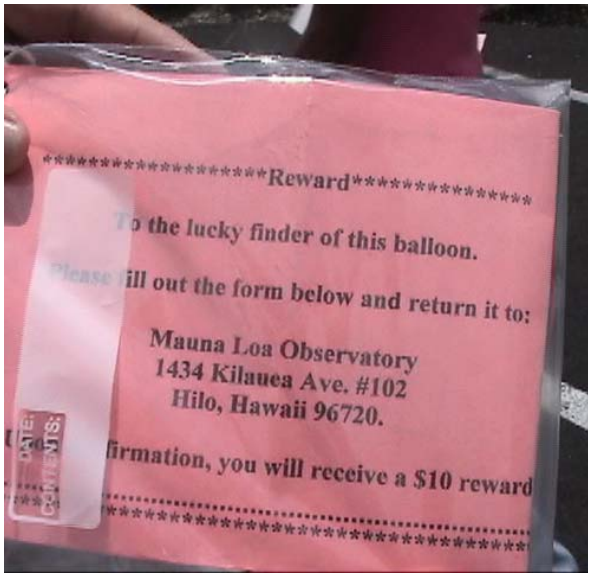
Fishing in the ozone-protected pond.

Tub on left has simulates what happens to our oceans when it is not protected by ozone. It has the deformed animals and less life forms.

The Balloon Launch (11:45)

Once Steve obtained clearance from the FAA tower, the weather balloon is launched.

The kids get ready to release the balloon



Reward notice is attached.

Away it goes!

Lunch (11:50-12:20)

Pre school kids were treated to hot dogs, carrot sticks, chips, orange, fruit juice, and cake.

The quiet area becomes the lunch area.

During lunch, Kendal, Dean, and Steve play music for the children.

Dancing (12:20-12:30)

After lunch the Preschool is led by John in square dancing.

The Preschool departed at 12:40.

Goodie Bags for Preschool Visitation

Forty-four goodie bags were made. MLO provided a NOAA sticker, pencil, Tsunami brochure for each bag. Darryl provided an earth kick ball, sunglasses, confetti, and bags/ties. Darryl's son, Logan, was credited with the goodie bag along with the MLO staff. A parent write up was also included.

Lunch for Staff and Helpers (12:00 noon to 1:00pm)

Food was brought by some staffers, Subway sandwiches were bought. The food also served as pupus for the Open House. During this period, the activity centers were taken down and the parking lot opened up.

Mochi and cream puffs

Spinach rolls, veggie platter, cake!

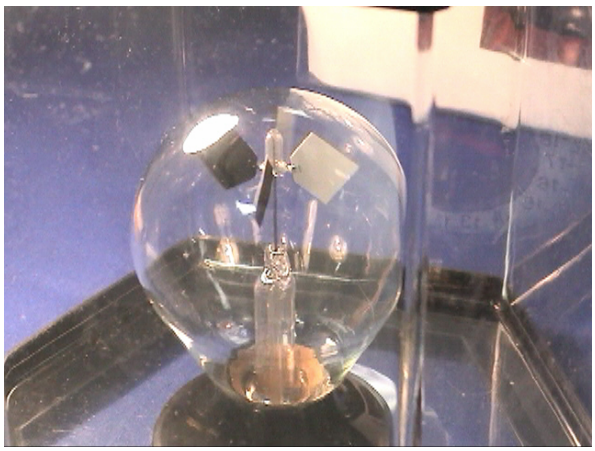
Sausages

Fruit platter, meat and cheese platter

Part 4: Open House (1:00pm to 3:30pm)

Agencies affiliated with MLO and the Merrill Lynch staff were

Nimmi explaining the laser



Radiometer on table display

Steve and Rick playing the blue grass tunes!

Part 5: MLO Staff Dinner/Cleanup (4:00pm-8:00pm)

MLO staff and family prepare dinner, clean up for the day, and relax from a hard day's work.

Johnny enjoys some shrimp

Preston and David having a good time.

MLO staff and family enjoying each other's company.

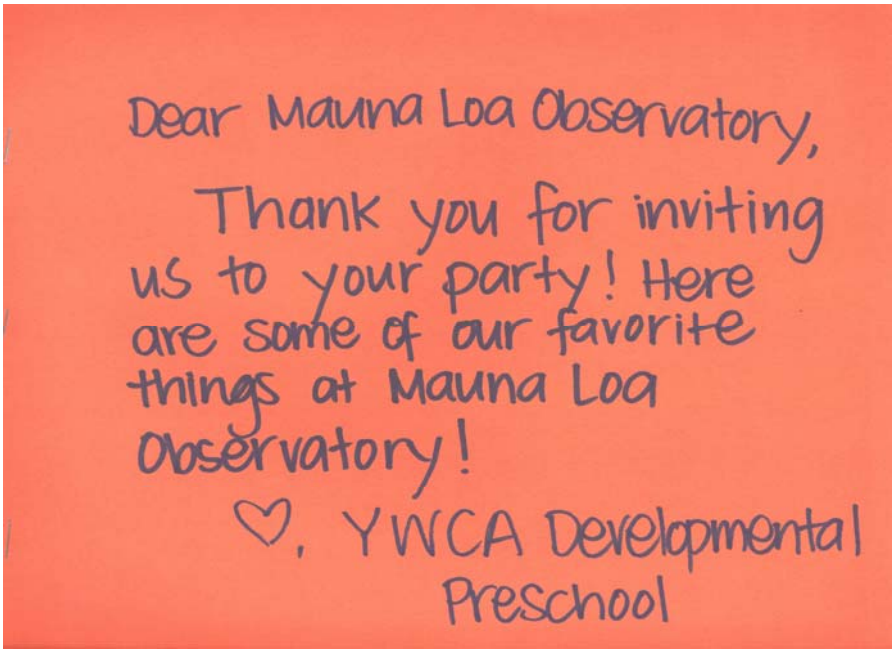
Logan steers his remote control car through the MLO road maze.

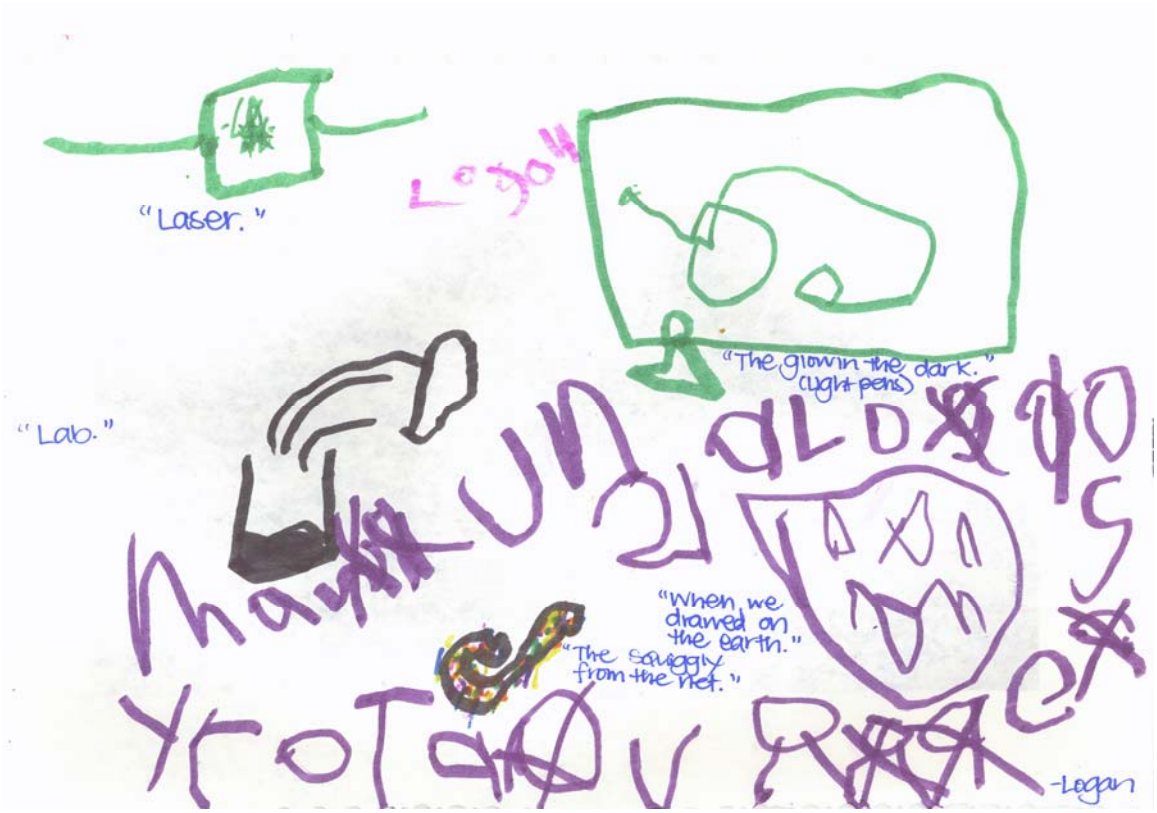
David enjoying the food and drinks.

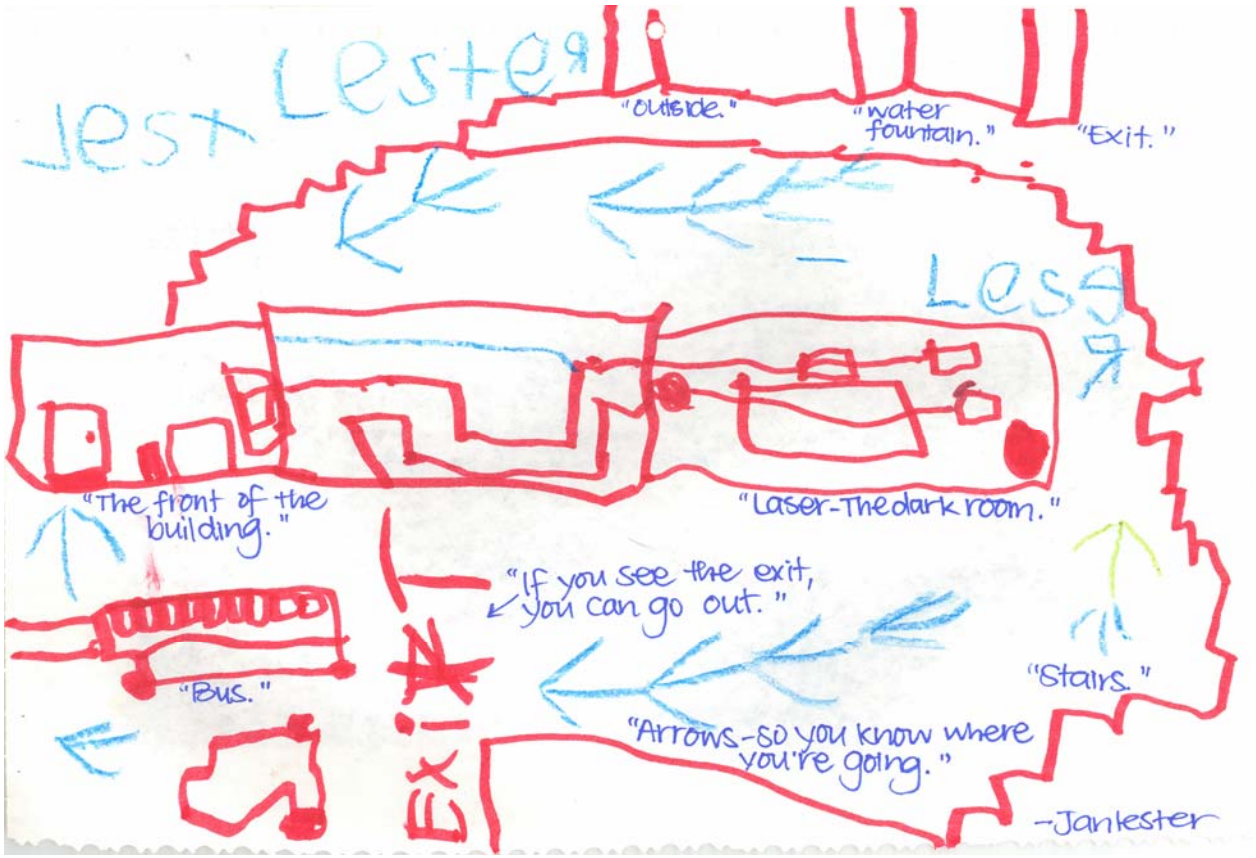
Part 6: Post Preparations

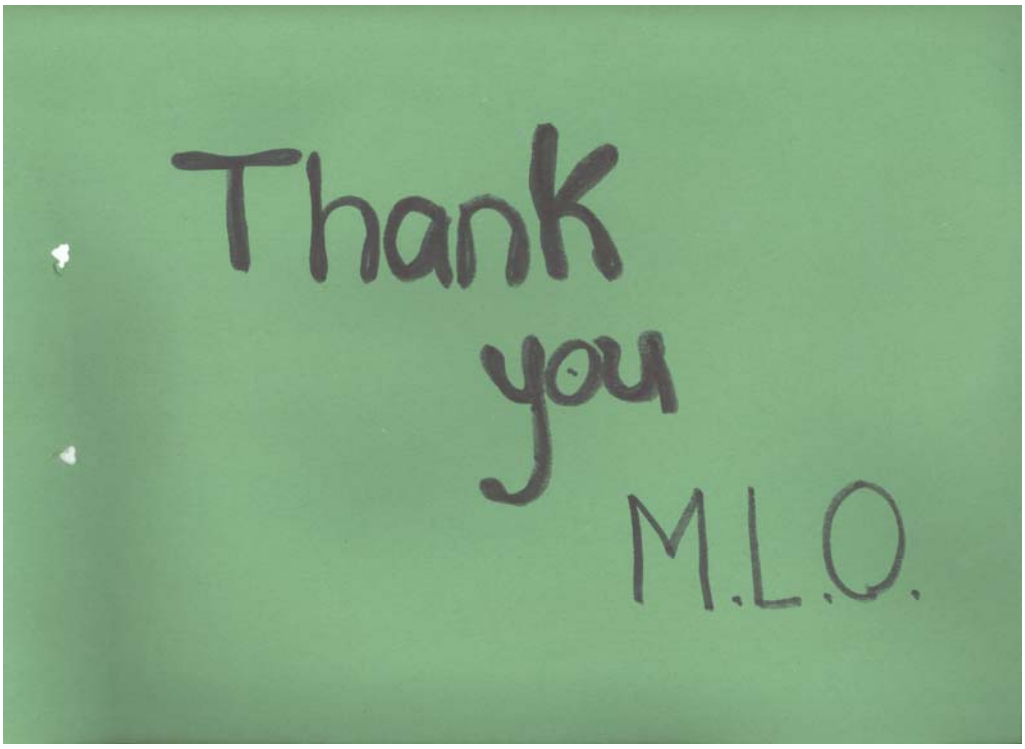
After the event, staff members were asked to fill out an evaluation of the activity center they manned. The children and teachers from the Pre School also were asked what were their favorite things from the visitation. The children drew their responses.

1. Preschool – teacher questionnaire and students drew their favorite things about the trip. Below are some of the drawings.




"Laser."
Logan
"The glowin the dark." (Light pens)
"Lab."
"When we drawed on the earth."
"The squiggly from the net."
-Logan


Jest Lester
"outside."
"water fountain."
"Exit."
Lesa
"The front of the building."
"Laser-The dark room."
"If you see the exit, you can go out."
"Bus."
Exit
"Stairs."
"Arrows-so you know where you're going."
-Janlester


Thank you
M.L.O.

Teacher Evaluation Sheet

Mauna Loa Observatory's 50th Birthday (Anniversary) Hilo, Hawai'i
28 June 2006, Wednesday
YWCA Developmental PreSchool Visitation 10-12

Big Ideas:

1. The Earth has an atmosphere.
2. Ozone is in the atmosphere.
3. Good ozone protects us from getting sick.
4. I can protect myself too.
5. Mauna Loa Observatory monitors the atmosphere.

Activitiy
1. Overview
2. Tour: Chem Lab (dry ice); Computer Lab (Darryl); Optics Lab (lasers)
3. Sun handprint
4. Dressing for "Sun-cess"
5. "Which waters do I want to fish in?"
6. Quiet Area
7. Earth cookies
8. UV Necklace

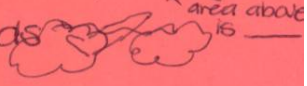
1. Which portions of the morning did the children enjoy/got big ideas across? Specify reasons for choices.

The children enjoyed the interest centers. They kept going back.
The children learned new words (vocabulary), science (cause and effect), developed their fine motor skills, self-control, social emotional development and through exploring.
The chemical and optics lab, Dressing for Sun-cess, Fishing, Earth cookies, UV necklace and Sun print were a success.

* we could have brought a jug of water - asphalt made it hotter

2. What portions of the morning could have been better and why? How would you change/adapt (use back if needed)?

overview - more visuals w/ Mauna Loa and what is actually done at the mountain, instruments they use, etc.
Earth - confused them (water was not blue)
Ozone & Atmosphere - use visuals
he talked about going up in the airplane but if he used visuals
ex plane goes up above the clouds
with preschoolers, it needs to be simple.

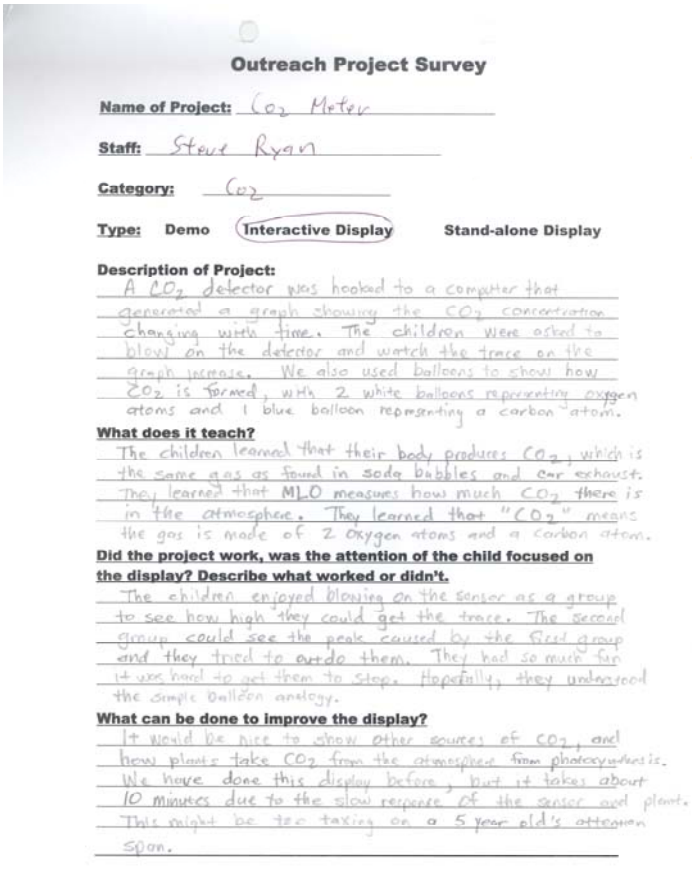


Results from feedback

The Top 10

1	Balloon Launch
2	Glow Board
3	Laser Demonstration
4	Earth chalk coloring(Quiet area)
5	Cake
6	Smoke rings
7	Dry Ice Extravaganza
8	Which Pond Do I Want to Fish In?
9	Sunprint
10	UV Necklace

2. A survey was sent to the person manning the booth for their feedback. This will be used for future outreach projects.



Outreach Project Survey

Name of Project: CO_2 Meter

Staff: Steve Ryan

Category: CO_2

Type: Demo **Interactive Display** **Stand-alone Display**

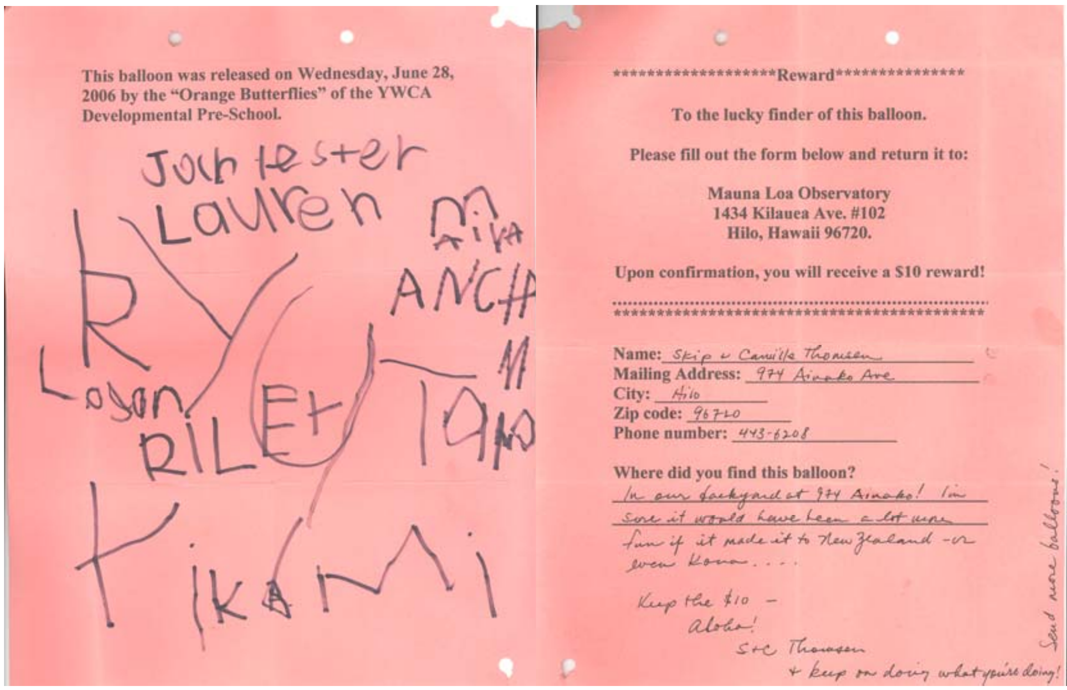
Description of Project:
A CO_2 detector was hooked to a computer that generated a graph showing the CO_2 concentration changing with time. The children were asked to blow on the detector and watch the trace on the graph increase. We also used balloons to show how $2O_2$ is formed, with 2 white balloons representing oxygen atoms and 1 blue balloon representing a carbon atom.

What does it teach?
The children learned that their body produces CO_2, which is the same gas as found in soda bubbles and car exhaust. They learned that MLO measures how much CO_2 there is in the atmosphere. They learned that "CO_2" means the gas is made of 2 oxygen atoms and a carbon atom.

Did the project work, was the attention of the child focused on the display? Describe what worked or didn't.
The children enjoyed blowing on the sensor as a group to see how high they could get the trace. The second group could see the peak caused by the first group and they tried to outdo them. They had so much fun it was hard to get them to stop. Hopefully they understood the simple balloon analogy.

What can be done to improve the display?
It would be nice to show other sources of CO_2, and how plants take CO_2 from the atmosphere from photosynthesis. We have done this display before, but it takes about 10 minutes due to the slow response of the sensor and plant. This might be too taxing on a 5 year old's attention span.

3. The balloon reward notice was returned to MLO. The couple Skip and Camille Thomsen found the balloon. They did not want the reward money. A gift package was sent to them consisting of a NOAA mugs and pen, brochures on MLO and CMDL.



This balloon was released on Wednesday, June 28, 2006 by the "Orange Butterflies" of the YWCA Developmental Pre-School.

*******************Reward****************

To the lucky finder of this balloon.

Please fill out the form below and return it to:

Mauna Loa Observatory
1434 Kilauea Ave. #102
Hilo, Hawaii 96720.

Upon confirmation, you will receive a $10 reward!

....
****

Name: Skip & Camille Thomsen
Mailing Address: 974 Ainako Ave
City: Hilo
Zip code: 96720
Phone number: 443-6208

Where did you find this balloon?
In our backyard at 974 Ainako! I'm sure it would have been a lot more fun if it made it to New Zealand - or even Kona....

Keep the $10 -
aloha!
S+C Thomsen
+ keep on doing what you're doing!

Send more balloons!

4. A mailing list of the visitors has been generated for future events.
5. Preston created a video from the footage he took during the event. The video was then burned to a DVD.
6. Pictures and information about this event will be placed on MLO's web site.
7. This report ends the post preparation for this event.

Thanks to:

Tracie Kuniyuki	Planning and manning the activity centers and Pre school liaison, making globe cake, cookies
Elsie Miyazono	Manning activity station, set up and lunch distribution
Julie Ann Hiramoto	Manning activity station, set up and lunch distribution
Kendal Lyon	Preparing cheese and meat platters, playing music
Verne Yoshinaga	Cooking hotdogs
Dawn Fukumura-Sawada	Preparing activity centers, manning activity station
Jessica Pajo	Preparing activity centers, manning activity station, setup
Carissa Pajo	Preparing activity centers, manning activity station, setup, preparing cheese and meat platters
Johnny Chin	Manning activity center, setup
Nimmi Sharma	Manning activity center in optics lab
James Salzman	Setting up video conference (Boulder)
Richard Mitsutani	Donating weather balloon
Gaspro	Donating dry ice and balloons
Nancy Cabral & Dr. Takase	Allow use of parking lot and facility
Dean Perkins	Play guitar music
Rick Schute	Play mandolin music
Dolores Clarke	Outreach supplies
Russ Schnell	Money for food

YWCA Developmental Preschool (Cottage) for singing songs and joining us in celebrating our birthday.

And to the MLO staff for all the preparation and hard work during the day!

John Barnes

Aidan Colton

Paul Fukumura-Sawada

Trevor Kaplan

Darryl Kuniyuki

David Nardini

Leslie Pajo

Steve Ryan

Preston Sato

Alan Yoshinaga

50 Years of Observations and Science