

#### Feedback from principal:

The excitement with Oliveira food waste program is high and the students are learning the value of recycling. Leadership is being developed among the student population to assist with the process of organizing waste and disposing properly. We look forward to the continued movement on our campus and the learning that will be taking place.

#### Young minds taking flight to go green

Oliveira Elementary School in Fremont, CA, contacted Green Kids Now, Inc., with their interest to pilot the Green Star School program in June 2011.

In August, the Founder, Pavan Raj Gowda (11 years old) and the President, Shanti Balaraman of Green Kids Now, Inc., met with the School Principal, Mrs. Anderson, and presented the program details, and provided the posters and classroom trophy required to get started when school reopened.

Green Kids Now, then contacted F.U.S.D and Allied Waste services in August and initiated the Food Waste program. The school decided to wait until the student council officers were elected for the school year and then start the program early November.

On Oct, 25th, Green Kids Now, Inc., arranged for an onsite meeting with the newly elected student officers, staff, principal, F.U.S.D Recycle coordinator, and Allied Waste Services to determine the size of the Compost bin, and observe the school current lunch time disposal processes.

On November 7th, Allied Waste services delivered the Compost bin and the collection green bins to the school. The principal had notified the students about the program and prepared them by showing a video of the proper method for lunch waste disposal process. The students' with great enthusiasm took the flight to "Go Green"!



December 2011



#### Guidance for Green Star School

http://greenkidsnow.org



## What is Green Star School Program?

Guidance provided by Green Kids Now, Inc., for schools to obtain Green Star School status ,and lead in environmental sustainability.

### What is unique about this program?

The guidance is aimed at providing kids the knowledge and hands on experience, by merging complex fields, such as Industrial designing, Biology, environmental science, green chemistry, project management, with heavy emphasis on Biomimicry.

While adopting STEM+ (Science Technology Engineering Mathematics) areas, it also incorporates leadership, team work, collaboration, and encourages innovation,



#### This issue

Update on Green Star School Pilot Program, at Chadbourne Elementary and Oliveira Elementary Schools

#### Pioneers exploring their passion

The Guidance for the Green Star School Program at Chadbourne Elementary School, in Fremont, CA, began on June 2011. Green Kids Now's founder, Pavan Raj Gowda (11 years old), and president, Shanti Balaraman, presented the program to the Staff, Principal, and Parents, explained the roles and responsibilities, and also discussed the needs of the school. In August, GKN provided the school with the posters and the classroom trophy that would be required for the program.

GKN requested Allied Waste Services and F.U.S.D to start the Food Waste Program. The school adopted a nomination process to select kids for the school's Green Kids Team. Eight kids were chosen from 2nd to 6th grade to represent the school's Green Kids Team.

Early October, per our request, Allied Waste Services placed the Compost bin and removed the additional blue trash bin. The small collection green bins were placed both in the cafeteria and eating areas.

GKN helped formalize the five step lunch waste disposal process. With the help of parent volunteers, student volunteers, and staff, the food waste program with the formalized five step disposal process is being carried out quite efficiently every day! The efforts of a parent, Ms. Luisa Ying, towards zero waste school is quite remarkable!

The Green Kids Team members take turns and record four days in a week, the trash / recycle / compost bin levels before it gets picked up by Allied Waste services. Each green kids team member also submits green tips for publishing in the school's newsletter.

During early October, GKN gave the Biomimicry session to the Green Kids Team, which was also attended by some parents. The kids were encouraged to come up with two or three ideas each for a school project. Together the kids decided to go for Rain Water Management project, with a goal to reduce rain storm water runoff and prevent down stream water pollution. Along with this project they also wanted to have an awareness raising campaign and influence other kids at school.

#### Feedback:

"The Green Star School Program is in line with Chadbourne's school vision of developing "... environmentally sensitive students who will lead the next renaissance". Since we started the program, the Kids Green Team are learning about waste reduction through composting, recycling, and how to reduce the cost of waste management. The entire school is being educating on how to be responsible citizens."

- Dr. Melendez, Principal

"Being part of a highly dynamic Green Kids Team, my son Ashwin is learning new concepts such as biomimicry and is doing hands-on projects. It truly has inspired him to take positive action towards protecting our environment. I'm really impressed with the progress the team has made in such a short span and the impact the program had on kids." - Justina, Parent

"I am proud to be a part of the School's Green Kids Team. Not only I become aware of the environmental challenges we face today, but I also get an opportunity to protect the environment and make earth a greener planet."

- Adithya Vasudev, Student

Chadbourne has several wellplanned programs oriented towards environmental conservation. Working with Green Kids Now program has opened the doors in two specific areas. One, it has provided to the core Green Team the opportunity to have a structured combined study of nature, science, design and project management. Two, the programs makes an effort to change the behavior and thinking about conversation in the classrooms something we have not been able to do otherwise. We look forward to be successful in both of these areas, and greening Chadbourne even more with the help of Green Kids Now in rest of the school vear! - Nishit, Parent

#### Continuation of Chadbourne's Green Star School Program update...

In mid October, the Green Classroom Monitor program was started. The green kids team members, along with parent volunteer took turns and presented important information on waste management in the classrooms, lunch waste handling, and trash around the school campus. They also talked about classroom participation and having each teacher assign a student Green Monitor for a week. It was very well received! Someone even came up with the idea of wearing something—like a green hat or cape to let students know who the green monitor is for the week!

GKN meets regularly with the Green Kids Team every other week on Friday afternoons to help and guide through the program.

The Green Kids team then used the Biomimicry concepts they had learned and observed different things in nature for understanding water conservation and water management in nature. They identified several plants, animals and insects and observed closely how they conserve water.

The team also looked into natural ecosystems and dwelled in depth on the natural fresh water ecosystem, and decided to mimic it for their project. They identified three major functions in the natural fresh water ecosystem and decided to mimic those functions.

These three functions are:

- \* Slow down
- \* Spread out
- \* Sink in

For their project, the Green Kids team adopted the Project Management guidelines taught by GKN, and they started writing down their detailed project plan. Kids took turn to discuss, brainstorm ideas and each wrote a section of the project plan.

The Green Kids team's recommendation was to replace a downspout near the school garden with a rain chain and capture the rain water running down into a harvesting barrel. They also recommend adjusting the landscape near the school garden with soil, rock, mixture and proper plants to help the rain water to slow down and sink in slowly.

The details of their project is well documented in their project planning document.

The Green Kids team looked into an important Biomimic life's principle, which is to reuse material that is local and readily available to them. They brainstormed several resources and collaboratively started designing their rain chain. They thoroughly enjoyed this engineering and industrial designing hands-on activity!

For managing cost for the materials required, GKN contacted the conservation department of ACWD (Alameda County Water District) for a grant. This application will be submitted before end of this month. Following this, GKN will contact F.U.S.D for all the right permissions required for implementing the project this school year.

The Green Kids team simultaneously started working on their awareness campaign as well. They will be raising awareness on the following four areas:

- 1. Waste Management
- 2. Water Conservation
- 3. Biomimicry
- 4. Inspiring and Motivating others

Topic	Items Required	Lead	Co-lead
Waste Management	Informational Board	Team effort	Team effort
	Carnival Game	Team effort	Team effort
Water Conservation	Informational Board	Ashwin	Adithya
	Carnival Game	Brendan	Shrey
Biomimicry	Informational Board	Aneri	Anagha
	Carnival Game	Anagha	Gregory
Inspiring and Motivating others	Informational Board	Shrey	Brendan
	Carnival Game	Adithya	Ashwin

# Data recording of waste levels: 1.2 1.3 0.8 0.6 0.4 0.2 1 2 3 4 5 6 7 8 9 10 11

# Industrial Designing of Rain Chain

Using Biomimic life principles to design rain chain.

#### **Principle used:**

Nature reuses local raw materials to build things.

