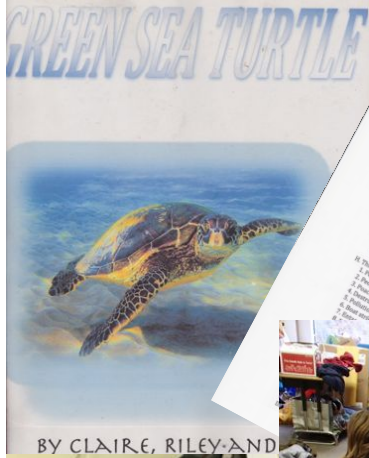


**Don't Be A Nurdle, Save the Sea Turtle;
Poaching, Bycatch & Plastic Pollution,
Tell the Whole World About Our Solution**



An Integrated Environmental Project of the 2014-15 Fifth Grade
at Mount Madonna School in Watsonville, California

PLAN, RESEARCH & FIELD TRIPS



One of Our Research Papers & Presenting Our Research

Our class has collected information and data in order to write research papers and create visual aides. These papers and visuals were used to teach each other in order to become “experts” on sea turtles so we could find ways to help the sea turtles. Our research required us to learn about and use reliable resources such as Sea Turtle Conservancy and the NOAA. Our research was the foundation for all the work we did with this project.

To figure out what topic we wanted for our project everyone found an environmental issue they liked and presented to the class. We looked at ideas such as whale sharks, pumas, global warming and many more. As a class we used majority rules with a blind vote to determine the top choice. In the end, we picked sea turtles. We couldn't decide on just one species so we picked to have all five California species be our project!

Brainstorming Our Plan



Part of our research was to attend and learn from different field trips and experts. First, we had a visit from Save Our Shores who introduced us to the threat plastic creates to sea animals and especially sea turtles, such as the Leatherback. Then, we went to meet Dr. Simona Bartl at Moss Landing Marine Lab to learn as much as possible about the Leatherback turtle and its Indonesian nesting beaches. We had experts in the field of public speaking and press release writing come to our class to teach us techniques to support our project. Lastly, we went to Seacliff Beach to learn from UCSC students about marine debris and share our work at the Ship to Shore Celebration.



On A Field Trip at Moss Landing Marine Labs



Learning from UCSC students at Ship to Shore

Government & Petitioning for a Ban

We started by learning our Constitutional rights so that we could find out who our representatives were and write to them asking for change to help the Sea Turtles. We wrote letters to our federal representatives, state representatives and city council. We asked for regulations on the longlines, ban on gill nets, better enforcement of TED laws, better roadside clean-up and a plastic bag ban.

Speaking at City Council

KSBW & Interviewing Our Class Before the Council Meeting

We wrote letters to Scotts Valley City Council asking for a plastic bag ban as they were the only city left without a ban in our county. The mayor invited us to speak at a city council meeting to explain to the council our reasons for a ban. At the meeting many people from the community spoke and supported us and the newspapers wrote articles about us. The TV news interviewed our class before the meeting. The mayor was very impressed with our research and presentation and a bag ban will be considered for a future agenda.

Students address SV council over plastic bag concerns



The controversy over single-use plastic bags arrived in Scotts Valley last week, as a group of 5th grade students — along with parents, educators, and members of the Santa Cruz County environmental community — addressed the Scotts Valley City Council at its meeting about the topic.

As part of a yearlong class project on the subject of environmental threats to sea turtles, the students — members of Jessica Campbell and Rachel Woodard's class at Mount Madonna School in Watsonville — cited the proliferation of plastic bags in restaurants and stores as a major threat to the turtles.

Campbell said that the students' project research, cleanup, civic service, and research to representatives of government.

As part of the project, the students raised funds for impoverished children and attend conservation camps to help protect endangered species.

"The reason we of students, to teach, world," she said.

In December, the class convinced the mayor of Scotts Valley — the municipality in Santa Cruz County.



to present their findings.

River said that he was his all its Feb. 3 meeting.

"I'm happy when we can public process like that."

Each child read part of the bags, and the potential harm that they present to sea turtles and other marine animals.

News Articles About our Speech at City Council



ABOVE: LETTER RECEIVED FROM A STATE REPRESENTATIVE
BELOW: LETTER WE SENT



Experiments

We created experiments with our 9th grade buddies to discover the biodegradability of bio-plastic. We broke into four different groups and tried to create outdoor like environments to see what bio-plastic breaks down in best. We made an experiment to test it in Salt Water vs. Fresh Water. We created an experiment to see if it broke down in soil vs. lake water. We created one to see if it mattered if it was in sunlight or shade. Lastly, we made one to see if warm water vs. cool water made a difference. In all situations we found that bio-plastic does not breakdown in normal outdoor conditions. We saw a little breakdown of the bio-plastic in the soil as we assume organisms helped to break it down.

SCIENCE
EXPERIMENT
POSTER

Testing Biodegradability of Bio-plastic

As a class we wanted to find out at what temperature DOES bio-plastic break down since it didn't breakdown in our other experiments. We found out that at 100 degrees Celsius or 217 degrees Fahrenheit break down begins! That means that bio-plastic will not break down even in compost piles as they only get between 160-180 degrees Fahrenheit! So bio-plastic IS NOT an alternative to single use plastic and poses a treat to the eco-system and sea turtles!!

Household Waste Data

Another way we collected data was keeping track of our household waste for five days to determine what our family uses and how we can change our habits to help the sea turtle. We used this data to draw pie graphs and converted the data into percents. We also calculated a class average of each type of item used and the amount of average waste our class uses. Our data chart is above that we created on a spreadsheet. We used this data and the data we collected at the beach clean-up to create a pledge with our families on one way we can reduce our waste.

Class Total of Household Waste Data

Type of Material	Item Total	Fraction	Decimal	Percentage	Average Pieces per Person
Plastic	457	457/1117	0.40913	41%	38
Styrofoam	34	34/1117	0.03044	3%	2
Glass	34	34/1117	0.03044	3%	4
Metal	209	209/1117	0.18711	19%	19
Paper	340	340/1117	0.30439	30%	28
Miscellaneous	58	58/1117	0.05192	5%	10
Grand Total	1117	1117/1117		100%	93

HAPPY TURTLE PRODUCTION COMPANY



We did many things to prepare for our film. We started by learning about story elements and how to draw a plot line. We then all came up with ideas for the plot line of our movie and drew a plot line together. We divided up into groups according to the scenes of our movie and wrote the script. After the script was finished we worked in our areas of the company and got together all the stuff needed for filming. The props and costumes and memorizing our lines. We made a shooting schedule and worked to film a scene a day. Some scenes were hard because of the wind and shadows and they were outside. We even filmed a scene in the 3rd grade classroom and had to wait for them to be on a field trip. We had lots of fun producing our movie!



Writing Our Script



US Operating Lights, Camera and Calling ACTION!



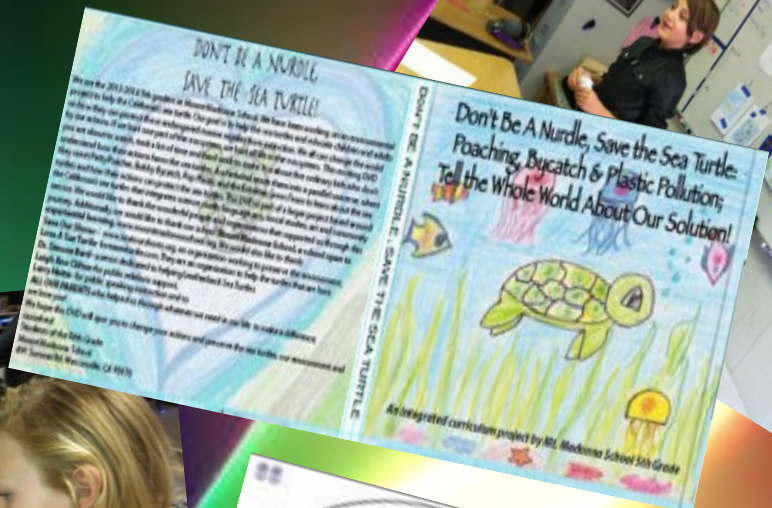
Jenna & Sophia Practicing Lines



Aria & Sophia Getting Ready to be Filmed

POST Production

Editing our movie using iMovie



Winning DVD cover

Creating our DVD Jacket, Insert & Label on Photoshop and Illustrator. We held an art contest to choose the art work for the DVD

We made original music using Garage Band



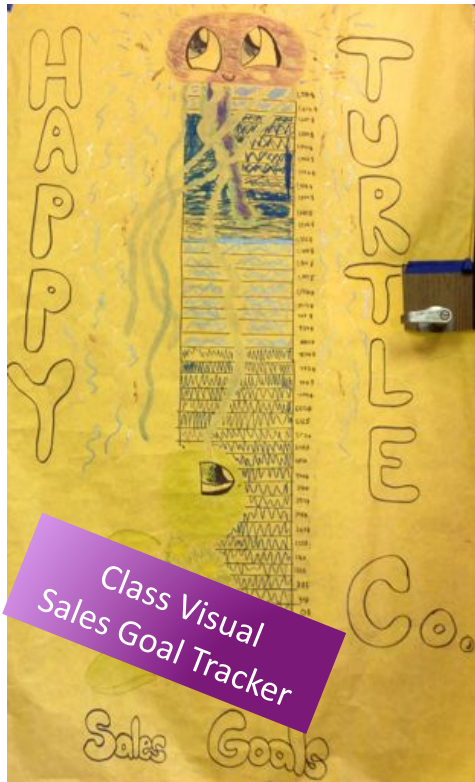
FUNDRAISING

We Raised OVER \$2800 to help Sea Turtles!!!!

We also raised funds by organizing an eco-affle that we hosted during our public presentation. We collected eco-prizes such as glass water bottles, glass straws, repurposed jewelry and reusable bags. We sold aaffle tickets on recycled corks and collected \$390!

To fundraise for Indonesian Sea Turtle Camp we sold our educational DVDs for \$25 a piece or 3 for \$60. As part of this fundraising our sales head and CFO worked with the class to set individual and a class sales goals. They also set up a spreadsheet in Excel to track all accounting and orders.

The money we collect will go to send impoverished children that live in villages next to the nesting beaches of the Leatherback turtle to camp. In sea turtle camp children will receive additional schooling, learn about the ocean eco-system, learn about the leatherback, help protect the Leatherback sea turtle, protect the nest and help hatchlings to the sea. Our funds will also go to help the organizations that have helped us and help the sea turtle and its habitat. We will be supporting Love A Sea Turtle, Sea Turtle Conservancy and Save Our Shores.



Class Visual Sales Goal Tracker

Sales Goals

Sales Person	Goal	Goal Amount	Actual Sales
Sara	5	125	6.00
Jenna	3	75	3.00
Aria	3	75	3.00
Wendy	4	100	9.00
Sarahannah	3	75	
Kathian	3	75	
Aria	3	75	
Sophia	2	50	
Clare	2	50	
Rodan	2	50	
Flley W	2	50	
Sabrina	2	50	
Flley M	2	50	
Amy	2	50	
Ryan	2	50	
Conny	2	50	
Oliver	2	50	
James	2	50	

Individual Sales Goals To Set Class Goal

A	B	C	D	E	F	G	H
12	Eric						
13	Ryan Rogers						
14	Marc Caudill	STC	1/13/14	1	\$20	\$120	check 1938
15	Tim Cowart	SRC	1/13/14	1	\$20	\$20	cash
16	Betty Cowart	SRC	1/13/14	1	\$20	\$20	check 319
17	Michelle Van Doy	STC	1/13/14	3	\$20	\$60	check 1383
18	John & Kelly Wagner	RW	1/13/14	3	\$20	\$60	check 1383
19	Claudine Bharghavan	AB	1/13/14	6	\$20	\$120	check 3086
20	Andrew Light	VF	1/13/14	1	\$25	\$25	cash
21	Joya Birns	VF	1/13/14	1	\$25	\$25	check 1798
22	Chris Fitzhka	CC	1/28/14	1	\$20	\$20	check 213
23	Elisabeth Chandler	CC	1/28/14	2	\$40	\$40	cash
24	Danna Rodgers	SRC	1/28/14	3	\$60	\$60	check 622
25	Moniue Smith Lee	RL	1/28/14	6	\$120	\$120	check 3310
26	Richard L. Wagner	RW	1/28/14	1	\$25	\$25	check 3433
27	Susan Hopkins	lp	1/29/14	4	\$85	\$85	check 314
28	Eric Rendall Wagner	rpw	1/29/14	1	\$25	\$25	check 1003
29	Sheila Wagner	rpw	1/29/14	1	\$25	\$25	cash
30	Bivenda Dinopoll	rpw	1/29/14	1	\$25	\$25	cash
31	Jordan La Radahl	rpw	1/29/14	1	\$25	\$25	cash
32	Emilie Benschoter	rpw	1/29/14	1	\$25	\$25	cash
33	Amber Grever	rpw	1/29/14	1	\$25	\$25	cash
34	Travis Shubeck	rpw	1/29/14	1	\$25	\$25	cash
35	Ilene H. Fish	rpw	1/29/14	1	\$25	\$25	cash
36	Robert Condon	rpw	1/29/14	1	\$25	\$25	cash
37	Rebecca Huth	AH	1/29/14	3	\$60	\$60	check 2925
38	Ellen Kruel	rpw	1/29/14	1	\$25	\$25	check 4410



Indonesian Sea Turtle Camp

We have chosen to support the sea turtle by supporting sea turtle camp in small beach villages where the Leatherback Sea Turtle nest (our state marine reptile and critically endangered). At camp the kids will have regular school during the summer months and learn about the ocean ecosystem, the Leatherback and about how to help protect the turtle. This is important because poaching of the eggs is common and a major threat. Also, these children don't get an education above 6th grade because their families can't really afford to send them to boarding school in the city for an education past elementary school. Our project will be helping children and children that will be helping the sea turtle.

We will be changing the way they think about sea turtles through our generosity.

We have gathered boxes of school supplies & raised over \$1800 for turtle camp which will allow all 150 children to attend camp this summer!!!



School Supplies Drive we are hosting to gather school supplies for children in poor villages at nesting beaches in Indonesia.

Kids at Sea Turtle Camp Weighing A Leatherback Sea Turtle

BEACH CLEAN-UP

As part of our civic service we chose to clean up our beaches. We went to a local watershed at Palm Beach with our 9th grade and PreK/Kinder buddies to pick up trash before it enters the ocean. Save Our Shores worked with us and gave us all the materials needed for cleaning and tally cards to track the waste we picked up. We found some pretty unexpected trash like a model airplane, an old gate and dog poo baggies.

We picked up over 32 pounds of trash on our clean-up!

Clean-Up Data Tally Card

Palm Beach Clean-Up Data

Type of Material	Item Total	Fraction	Decimal	Percentage
Plastic	439	439/778	0.56426735	56%
Styrofoam	52	52/778	0.06683805	67%
Glass	83	83/778	0.1066838	11%
Metal	37	37/778	0.04755784	5%
Paper	55	55/778	0.07069409	7%
Smoking	84	84/778	0.10796915	11%
Medical	10	10/778	0.01285347	1%
Miscellaneous	18	18/778	0.02313625	2%
Grand Total	778	778/778	1	100%



Data was converted into a percentage graph

Stow It, Don't Throw It

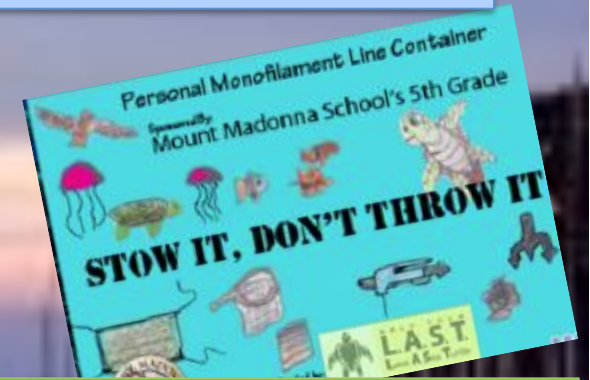


Our posters we made to gather canisters from local tennis clubs to make the monofilament line canisters



Love A Sea Turtle gave us the idea to start the program in California. They also supported the program by funding the labels through a grant.

To prevent waste in the ocean we decided to follow the advice of Love A Sea Turtle in North Carolina and start a program here in Santa Cruz. We have collected tennis canisters to turn into monofilament line holders for ocean users to safely hold line until it can be recycled back in the harbor. Save our Shores and Moss Landing Harbormaster will help to distribute canisters. We will distribute canisters at the local Earth Day Festival.



Stow It, Don't Throw It label created by Kahlan to be used on our canisters. Kira, a student (and our CEO) wrote the grant to provide funding to order 250 labels from a local school family's business.



Working to build a canister with our teacher

Presenting & Teaching



Public Event at Satori Cellars to share our project and to show a preview of our educational movie. We had almost 200 people there and a lot of organizations and scientist came to the event!



Teaching our Little Buddies with our research boards and with our games & curriculum we made for Indonesian sea turtle camp.



Sharing our project and research to UCSC students & the public at Seacliff Beach at the Ship to Shore Celebration



Presenting to Our School Preschool – High School



A Crack Into The Future



We will continue to learn with a trip on the O'Neill Sea Odyssey



Our DVD will be seen and shared helping to spread the word about how our every day choices make a difference



The funds we raise will continue to teach children in Indonesia and change their choices and their families for the future.



EARTH DAY
SANTA CRUZ

Saturday April 19, 2014
11 AM - 4 PM in San Lorenzo Park



We will be sharing our project at events like Summit for the Planet & Santa Cruz Earth Day



Our Stow It, Don't Throw It program will help in the future to keep monofilament line out of the ocean!