

Powerful Learning with Public Purpose

WHAT  
**Kids**  
CAN DO

Feature story posted at [www.whatkidscando.org](http://www.whatkidscando.org) | april 2003



## Connectivity at San Diego's High Tech High

**W**ith the lively but purposeful tone of a high-tech workplace, San Diego's High Tech High (HTH) aims to know its students well, forge strong connections between their academic work and the outside world, and hold the entire enterprise to a common intellectual mission.

Founded in 2000, the Gary and Jerri-Ann Jacobs High Tech High Charter School draws inspiration, support, and purpose from San Diego's high-tech community, particularly funders like Qualcomm, after whose \$3 million donor this public school is named. HTH's state-of-the-art computing facilities and spacious physical plant—a renovated former U.S. naval base, crisscrossed with networking cables and decorated with framed artwork—reinforce the entrepreneurial feel of a successful dot-com startup. The school puts an apt premium on inquiry, hard work, and persistence.



Selected by lottery from San Diego's diverse neighborhoods, HTH's 350 students quickly adjust to the school's mix of individual challenge and warm personal support. "All different kinds of people come from all over the place to study here," says Charles, a tenth grader. "That's a benefit of a small school. In a big school you can't possibly begin to know everyone's name," he explains, "but in a small school, they can connect to each other."

And with no more than 100 pupils per grade, the same connections are common among students and faculty. "I had some teachers who were really important to me," says Starr, a HTH

## High Tech High at a Glance

**The product of a coalition** of educators and high-tech leaders, High Tech High comprises two divisions. Students in Division I (grades 9-10) study math, science, Spanish, and integrated humanities while completing projects in and outside school. In Senior Institute (grades 11-12), students pursue more advanced coursework and internships developed in consultation with a school advisor and worksite mentor.

**All HTH coursework and projects** incorporate the school's five habits of mind: perspective, evidence, relevance, connection, and supposition. Every project culminates in a final exhibition before an audience of experts, teachers, peers, and family.

**Daily group planning time** gives HTH teachers a chance to plan and review the learning program that features integrated curriculum, team teaching, project-based learning, and performance-based assessment. HTH also helps prepare future teachers; it offers pre-service internships for Masters in Technical Education students at San Diego State University and other local teacher preparation programs.

HTH graduates its first senior class in June 2003. A new High Tech Middle School will open in fall 2003.

junior. “[They] knew I liked to do things myself and had a hard time asking questions.” Her advisor, who like all those at HTH stay with the same advisees throughout their school career, “worked with me on my personal level,” she adds. “That helped me a lot academically.”

## Venturing Outside School, Inviting the World In

“This school isn’t just little textbook assignments and worksheets,” says student Quan Ton, explaining that HTH “is a project-based school. It means that my school does big, exciting, yet complicating assignments that require a lot of research, software, Internet usage—and ideas.” As students pursue projects in molecular biology, robotics, painting, or bridge building, for instance, they move among individualized computer workstations, specialty labs, and seminar rooms.

By junior year, students are out in the San Diego community part time, in internships that match them with workplace mentors. Their role is not just to learn but to create something of value for their employer—from websites to water quality proposals, documentaries to community surveys.

Kiel, for example, created a video about HTH’s internship program. The school had over 300 copies made for use with funders, prospective employers, parents, and others.

“I cared about the video because it was an important thing,” says Kiel. “Because it was important to them, I gave it my best effort.”

HTH links to the outside world not just through student internships. The school recruits teachers from the professional world; many have come from careers as scientists, artists, or leaders in business and industry. Professors from San Diego’s community college system offer courses in HTH classrooms for which students earn college credit as well as meeting HTH curricular requirements.



also form part of every portfolio.

And just as HTH students go out into the world, they also invite the world in—through the digital portfolio kept by every student and posted on the school’s website. Here students report on their coursework and projects, showcase their writing and art, and reflect on their learning. In a section called “Mi Mundo,” students write in Spanish about their family and community. The student’s own resume, explicitly intended to result in a workplace interview, and a personal statement revised yearly



Jose, a HTH junior, recalls how his digital portfolio jumpstarted the kinds of individual initiative and real world networking the school prizes:

Within the first week we had to start our digital portfolio, and I got introduced to the subject of web design. I read a book to learn to do HTML, and I started reading book after book about website design. A year and a half later, I was already doing work for this company, and now I go to seminars on web design. I met a guy in multimedia at San Diego State University, and we kept in constant contact, talking about what I could do. He is now my mentor on my internship.

### Students and Teachers 'Learn Off' Each Other

HTH students frequently work together in small groups to carry out their classwork and projects. Despite the challenges of teamwork, they see the advantages—and the practicality—of such collaboration.

“It’s different working with another person,” acknowledges Max, a tenth grader. “Part of the reason they have us do group work, I think, is so that we can learn to work with people we probably wouldn’t otherwise want to work with. In college and in your career you might need that.”

In addition, teachers expect students to become active investigators and researchers rather than passive recipients of knowledge. “Teachers give you all these options,” says Amber. “A lot of the teachers have a different attitude about teaching students: they’re trying to work with the students,” she notes.

Anders, a junior, offers an example. “One of our teachers started the robotics course because he also wanted to learn about robotics,” he says. “He would go to extra classes so he could teach us new stuff. We could learn off of him and he could learn off of us.”

Indeed, HTH students are often asked to draw upon their own expertise to teach others—including their teachers. Jose recalls one teacher who “tried to teach us [the computer application] Flash, but she barely knew it herself. I was the student who knew Flash, so she would have students come to me. At first it was kind of a drag, but I actually learned it so much better by teaching someone else.”

The same kinds of collaborative learning processes unite HTH faculty members, who teach in teams of three, combining subject matter into interdisciplinary units and projects. “You have three chiefs, each in their own discipline,” says math teacher Susan Reed. The close collaboration, coupled with challenging project work, can make for some fairly steep learning curves. “This isn’t comfortable to most teachers,” notes science teacher Andrea Cook, “because you don’t have the answers. You have to make connections to pull it off.”

Thai, a junior who emigrated from Vietnam at age 12, appreciates the environment borne of HTH’s connectivity. “In most schools people are just caring about their grades,” he says. “It’s like ‘Forget about you, why should I teach you?’” Most high schools are about individuals, he concludes, but “at our school, we try to be a community helping each other.”

**The High Tech High website**  
posts useful resources, including:

- [The HTH Movie](#), a video featuring HTH’s founder, principal, other staff, and students.
- [Books and research](#) in support of academic internships and school-to-work programs.
- [Archive of press coverage](#) including *The New York Times*, *San Diego Union-Tribune*, *Business Week*, and other national publications.

**See also** the *High Tech High Annual Curriculum Yearbook*, available through High Tech High Learning (2861 Womble Rd., San Diego, CA 92106; 609.248.3500)



## Connecting through projects

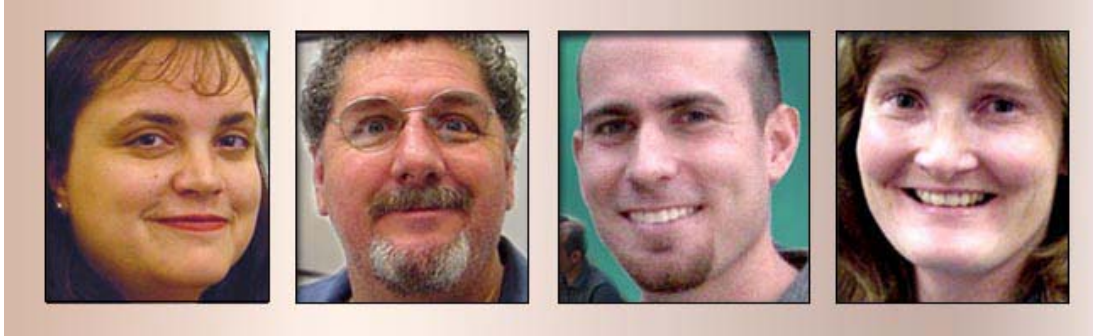
*Projects are everywhere at High Tech High, and a look around the school on any given day will find students of every subject actively making things, trying things out, making them better. Teachers are learning, too, as they work in collegial teams to develop and share curriculum and to assess how students have gained. —from High Tech High's **Annual Curriculum Yearbook (2002)***

*High Tech High is a project-based school. It means that my school does big, exciting, yet complicating assignments that requires a lot of research, software and internet usage, and ideas. This school isn't just little textbook assignments and worksheets...  
— **Quan Ton, HTH student***

**A**t High Tech High, interdisciplinary study, links to the real world, and teamwork invigorate teaching and learning at every step. And it is through projects that these three strands most often connect.

Below we examine projects at HTH from the viewpoint of both faculty and students. The faculty commentaries, drawn from the school's annual curriculum yearbook (which can be ordered through High Tech High Learning), reveal the multiple ways HTH teachers reach across disciplines and make learning relevant.

The student project descriptions are but a small sample of the hundreds of summaries posted in the digital portfolios kept by each student. The examples we share here reflect the extraordinary range of projects that students pursue. As one student said simply, "I never would have thought to do a project like that!"



## Real world research

“In science there’s a view that you have to have a Ph.D. to do research,” says HTH science teacher Theresa Gilly. “I don’t believe it,” she continues, “I believe high schools should and could be doing real research.” Gilly came to HTH determined to prove her belief true. After seeing good results with a water-quality project in which students designed a water treatment facility, she and her tenth-grade teaching partners teamed up for an energy project that drew in chemistry, math, and the humanities.

With California in the midst of an energy crisis, oil prices rising, and the world in turmoil, the project had plenty of relevance. As Gilly’s chemistry classes studied nuclear energy, humanities teacher Mark Aguirre arranged debates on nuclear issues in his class. Students took in the San Diego mayor’s “state of the city” address citing energy as a key issue, and then took up their own task: recommending an action plan to the city council that would reduce reliance on fossil fuels and increase environmental awareness.

They started by researching the science and origins of various fuel sources, including hydrogen fuel cells, solar power, wind power, wave power, and biomass. “Building on our previous project about water, we did a series of experiments where they tested the fuel efficiency of water,” Gilly says. Then groups of four set out to build a hydrogen fuel cell that would run a solar powered car. “When you put water in, a solar panel splits it into hydrogen and oxygen, and when you cover the solar panel the car will run on water,” she explains. “They had to do real research on how economically feasible that is.”

“Once you teach kids how to do high level science, then the understanding starts to come,” Theresa Gilly says. “As they’re doing pipetting, they ask questions: So now what’s happening? Why? If you really want to get kids interested in science you can’t do it the old way. You have to let them figure it out.”

There’s another reason Gilly engages her students in research-based projects like building a hydrogen fuel cell for a solar car. “I want products,” she explains, adding “kids drive themselves, they work better, when they have a real world expectation from someone outside the teacher. You can get them to do more work for you—it’s an intrinsic motivator.”

## Writing across subjects

“Writing and communication are very important no matter what discipline kids eventually go into,” says Will Turner, who teaches on the tenth-grade humanities team.

In their first year teaching together, he and his team colleagues concluded that improving their students' writing took precedence over memorizing factual information. "We were less concerned with the 50 state capitols and Presidents' names," explains Turner, "than whether students can get information, analyze it, draw their own conclusions, and then present all that in writing." The team agreed on using Writing Workshop as a vehicle for content, spanning the disciplines of math, science, history, and literature.

Because the same group of students rotates through the team's classes, their teachers can merge class periods for joint projects like this. Students typically work on the writing workshop assignments for two weeks, starting with a reading that prompts discussion and the first draft of an essay. At the end of the week, all 60 students come together for an extended workshop in which they exchange drafts for peer editing, then revise. In the next week's session teachers give them feedback on that revision, and students use the workshop to prepare their final draft.

Students respond to articles from science journals or the lay press. They might read a magazine article, for example, on the government's decision to comply with the Native American Graves Protection Act by returning remains to a tribe's people rather than to a museum. "Was that a good decision?" the team of teachers might ask, prompting students to summon—and distinguish between—legal evidence and scientific opinion.

Over time, Turner says, "we use writing workshop not as a stand alone thing but as a vehicle for curriculum, focusing heavily on short stories." They might ask students to analyze the use of irony or describe the segments of the plot in Poe's short stories. By term's end, students write their own historical fiction—an 8-10 page story that covers a 24- to 48- hour time period of a particular historical era they are interested in knowing more about.

The workshop has its challenges, Turner acknowledges. With 60 students tackling 60 different projects, "logistics can be maddeningly difficult. We spent hours figuring out how to grade them," he notes. "My job is not just teaching but project management—most teachers struggle with that." Yet by working together the three teachers discovered an increased capacity to assign and assess writing, which ultimately benefited students. "All of us coach students as they do their peer editing, and then after the second draft we divide the work to assess it with common standards," explains Turner.

By devising a three-tiered rubric, the team also resolved the challenge of working with students at varied writing levels. After students can meet expectations for a one-paragraph response, they move up to a five-paragraph response and then an essay in which they compare and contrast viewpoints. Turner compares the approach to working up from a white belt in karate to higher levels: "The white belt is writing one paragraph well."

## **The medium and the message**

Of the cross-disciplinary project she helped develop with her ninth-grade teaching team, math teacher Susan Reed says, "There's something nice about it. It doesn't quite fit in." The project asks students to develop a medium along with a unique message that suits it.

Students work in pairs as they develop their medium—a lighthouse, a typewriter, a decoder, a camera—and a message. Spending about half of each math period on it, Reed says, they typically call on measurements and binary code to amplify their idea.

In physics class students work on more advanced ground. “I’m learning as much as they are,” Reed exclaims. “They’re learning how to make a camera! They’re creating a projector system with a screen and a flashlight, learning about electrodes and generators. They’re reading manuals on how to produce a sensor and then putting it together. I don’t think they necessarily realize how far they’re taking this.”



UN Global Compact

In humanities class, students concentrate on working out the message itself. They also practice their skills in professional writing, preparing project proposals, status reports, and end result reports, as they follow the project through.

“When kids first get here from eighth grade they are not ready to do large projects right away,” Reed observes. “To see the thread develop they need practice.” Over the course of the year she assigns four or five projects: first mini-projects, then a larger in-class project, then finally a cross-disciplinary project.

The adults, too, work on a similar learning curve. “I’m doing four or five projects a year,” Reed notes, “and each time I do it, I improve in my ability to convey requirements and offer support,” she says. “It’s difficult, it’s time consuming, but it’s worth while.”

The technology resources offered at HTH are a big help, she adds. “If we didn’t have the computers and the technologically savvy people, it would be much more challenging. We have an engineering lab that’s full of tools. It’s a process—each time we get better at finding what we need.”

## Teamwork and technology in social studies

“When you start working in teams you have to start explaining things, to yourself and to your co-teachers,” says Mark Aguirre. A seasoned history teacher with a more traditional background, he knows the contrast well. “When you teach alone, you just do things. You don’t have to justify why.” As his tenth-grade team has tried out thematic projects across disciplines, one teacher typically takes the lead, with responsibility for the culminating project. But “it’s a baby step to where we’re going,” says Aguirre. He foresees someday having all classes working toward the same integrated final project, not just making loose connections as they arise across subject areas.



Doing projects does not always mean developing curriculum from scratch. For the first trimester Aguirre used materials from a national History Day competition sponsored by the Constitutional Rights Foundation. Working with the theme of revolution, students developed projects of their choosing, from a video documentary on the Japanese internment camps (an entry that won honors at the state level) to a website demonstrating the revolutionary art of animation.

By year’s end, Aguirre had immersed his classes in social studies issues with energy connections, linking with the team’s fuel energy project led by Theresa Gilly. For a debate on nuclear issues, for example, each class took a different topic: the proposed federal site for plutonium waste in Yucca Valley; the tradeoffs of using nuclear energy; its usefulness compared to other fuel sources.

Another project spanned the whole year and focused on globalism. Choosing a United Nations topic that interested them, groups of students created their own video public service announcements. The process involved researching and analyzing their issue, defining the PSA's message, making its storyboard narrative, filming the piece itself, and working with computer animation video editing programs to bring it to final form.

## Creating a High Tech High Network

At 15, Rickey Morton might be “the youngest female on the planet” to have been certified by Cisco Certified Networking Associate (CCNA), said Deborah Sponder-Levin, the parent volunteer who has taught HTH electives in network administration. For one class, Rickey and two other 16-year-old HTH certified networking associates, Gil Shafir and Abel Levin, worked closely with a Cisco engineer to redesign the very infrastructure of the network to allow use of certain software students liked best.



“This is a flat network and we want to create a layered network [LAN] instead,” Rickey explained. “This one’s security features don’t allow for software like Audio Galaxy, where they give you your own satellite and you’re allowed to download music.”

“Right now if the kids experiment the whole school folds,” noted Deborah. “They want to have their own “Dirty LAN”, so that if they mess it up, they fix it.” Because that involved a new module for the server, the students investigated the various options and costs, and sent to Cisco their own proposal for the new LAN.

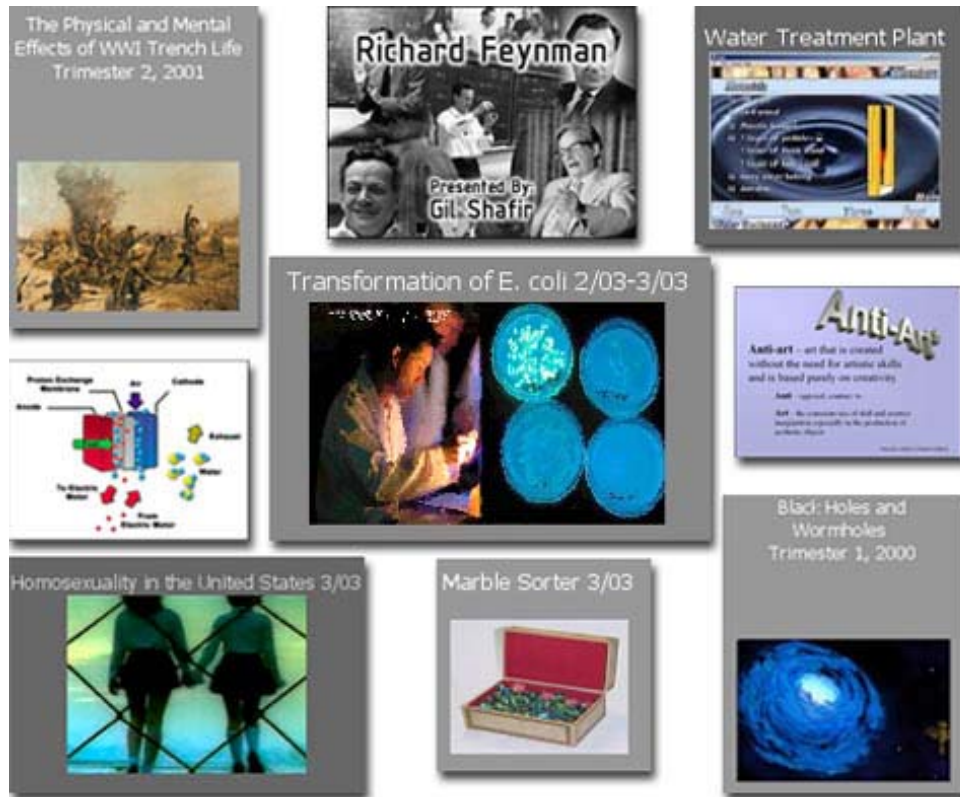
Eighty students take the twice-weekly networking course, and usually most are boys. Designed for community colleges, it is conducted via the Internet (at [www.cisco.net](http://www.cisco.net)) and culminates in an extremely challenging exam; those who pass can move on to well-paid careers helping companies set up their information technology networks. “I thought: I’m here at High Tech High and I should be high tech, too,” said Rickey, who tried her first computer at eight and transferred to HTH in the middle of tenth grade. “It seemed like everyone knew more than I did, and I was fascinated. My dad, who owns his own business with weight loss products, says you never stop learning, which I believe also.”

Rickey found her schoolmates eager to help with everything from the tutorial on programming to learning Javascript and Dreamweaver. “Everyone here has to do a digital portfolio on a website, so students would ask me if I needed help with it,” she said. “Now I find myself teaching other new students the same things.” In fact, student experts abound at HTH, said Deborah: “A student teaches our elective course in Flash, which is an animation software, and 24 kids enrolled.”

“Whenever I do have a project I always try to work computers into what I’m doing,” said Rickey, who also was working to add Microsoft certification to her HTH resume. “In Humanities, we had to do a website about the 1920s and I did mine in Flash. At my internship at Junior Achievement, I was the web page designer. The first book I read about computers was Bill Gates’s biography out of the library here.” She imagines a career in animation or programming, she said, and hopes to study computer science and Spanish at New York University.

“Sometimes I feel uncomfortable because I’m the only girl around here who really does care about computer-related topics,” Rickey admitted. In classes dominated by males, she said, “I

just try to get along with them, like I'm one of the guys.” Deborah Sponder-Levin, whose own career in network administration makes her a steadfast role model, lamented the fact that males tend to dominate the school’s computer culture. Still, she observed proudly, pointing to Rickey as evidence, “Once they’re there, they stay.”



## Student Project Descriptions

### Hybrid: A Look Into The Future

This was an absolutely amazing project to undertake. I learned many things about the future of the way we travel. This project entailed almost two weeks of research on how the hybrid [car] works. I discovered that there are two different types of hybrid systems: the parallel and the series hybrid. Of course the parallel was the more efficient of the two, but the series was the easier to build and longer lasting. The project led me to two or three email conversations with Honda engineers. This project was completely relevant to my life in one main way. The hybrid concept is not just a flash in the pan but might actually become the future of the car industry in America and the world. **(Patrick Colley, grade 10)**



### Humanities: Things Fall Apart

One of the great things about Lara's class was her dedication to teaching us that every civilization has its importance and its history. Like everyone else, I was very Eurocentric in attitude before we studied Africa. After reading Chinua Achebe's *Things Fall Apart*, I realized the impact white colonization had on African life. Pre-colonial Africa had its own mores and folkways prior to Europe intervention, and these aspects are emphasized in Achebe's book. Our final for the trimester consisted of writing a formal in-class essay on *Things Fall Apart*. I was very proud of my efforts and what I had learned in our class discussions.

**(Bryndan Bedel, grade 10)**

### Physics: Bridge Building Project

This was the very first project I did in the first trimester. It was my first experience planning and working with a teammate at High Tech High. It was a valuable experience.

The main goal was to create the strongest bridge we could out of popsicle sticks. Our bridge had to weigh no more than 300 grams and could span no more than 30 inches. The project was difficult yet fun. Although, we canned our basic design and instead we made a plank instead of a bridge. Our class was unable to break the plank bridge until the next trimester (when we came back from winter break).

We were disappointed to discover that our "plank" curled up over our vacation and then it began to crumble right in our hands. We still received credit for trying. **(Joseph Baptista, grade 11)**

### 20th Century Art Project

My 20th Century Art Project is where I had the opportunity to mimic the style of a famous American artist. I chose Franz Kline, who is an Abstract Expressionist of the 20th Century. I was interested in Kline because he did not really paint anything, but he rather painted process. When I first hung my painting in the hallway I was getting questions like "what is that?" I told them that it wasn't really anything. I told them that I painted process and they were like "whatever." **(David Madrid, grade 12)**

### Transformation of E. coli

During the second trimester in Biology of Junior Year, we worked on a very prestigious and advanced lab project. Basically, we took a gene (originally from a jellyfish that glows) and put it into E. coli to make the bacteria glow. After that, we worked to purify the glowing protein using chromatography and gel electrophoresis. This project gave us a hands on approach to laboratory science and helped us better understand the complex concepts that we were learning. **(Linh Tran, grade 11)**

### Spanish Influences on San Francisco

This project was done with my partner Chelsea Elsasser. Our assignment was to pick a city and research Spanish influences to that city. We had to find the Spanish backgrounds and history if

it had any. In this case it did, the city we chose was San Francisco. In fact the name San Francisco is from Spanish dialect. We also had to find food, populations, and tourist attractions that have to do with Spanish influences. **(Jeremy Gabasan, grade 10)**

### **Our Triangles**

In this power point project my math group and I, we went around the school and took pictures of transversal lines, corresponding angles, supplementary angles, alternate interior angles, same side interior angles, complementary angles, and vertical angles with the school's digital camera. Then we made lines that emphasized where the lines and angles were in adobe photoshop during time in class. Next the group got in front of the entire class of 16 people not including teachers and talked about the pictures of different angles and lines. Everyone in the group had to say something or else points would've been taken off the final score of the presentation. **(Dieu Ho, grade 10)**

### **Humanities: The Harlem Renaissance**

Two other students, Laura Madruga, Nick Zimmer, and, myself (Starr Kirkland), created a book on the Harlem Renaissance. Each student researched at least five different people who were important to the Harlem Renaissance. We found work pieces from the writers and artists and included them in our book. Currently we are still working on a CD with a compilation of songs from all of the musicians. **(Starr Kirkland, grade 11)**

### **Black Holes and Wormholes**

At first this project was meant to build a web site on wormholes. After starting to do a great deal of research into wormholes, I realized that in order to understand wormholes, you also had to understand black holes. Therefore, I built a web site that allows people to easily understand black holes and wormholes. Honestly, I believe that this web site gives the best information about the above subject, because as I did research there was a lot of useless information on the web and it took a long time to find the information that I did. **(Julio Diaz, grade 12)**

### **Anti-Art Presentation**

The Anti-art presentation was my second trimester 10th grade Presentation of Learning. Anti-art is a term we coined for art that is created without need for the standard skills. By definition art is the use of skill and creativity to create aesthetically pleasing objects. With the advent of powerful personal computers which are available to the masses and powerful image editing programs such as Photoshop people can create aesthetically pleasing final products based on their creativity without having to rely on the standard technical painting skills usually



associated with art creation. **(Gil Shafir, grade 12)**

### **Conversation About Math**

We've had conversations in class where we talk as a big group about math. Sometimes we talked about the problems we were working on, or a new idea that Mr. Blount just taught us. This gives us a chance to hear what other students think about the math, and it also lets us explain what we think. Most of the time the conversations were more wordy, which is fine, but it was more interesting when we got into the mathematical side and started talking about the actual math, because otherwise people started repeating other people. **(Erin Hassidim, grade 10)**

### **Homosexuality in the United States**

For my Presentation of Learning during the Winter Trimester of Junior year, I decided to talk about a touchy yet often overlooked subject. Homosexuality, from my limited point of view, still needs to be more accepted in the United States, so therefore the reason for this POL was to raise awareness and prevent discrimination. After doing some research I was shocked to find that the treatment of homosexuals was worse than what I had originally perceived. Doing this project has helped give me a new perspective about this topic since I had to look at both sides of the story. **(Linh Tran, grade 11)**

### **Spanish: "La Casa Ideal" (the ideal house)**

In this project I was grouped with two other people and over the time of three weeks, we designed and presented what our ideal house would have in it and look like. My part of the project was to draw out what my room would look like and make a poster for us all to present. I can't show you the picture of my room, but I will try and explain it. First in the corner was my bed; [it] doesn't really matter how nice my bed was seeing how I wouldn't be in it for more than four hours a night. Then hanging over my bed you would have a nice flatscreen t.v. Not too big of course, it is just right over my bed... Then near the headboard of my bed is a row of computers, used for anything from gaming, to rendering my 3d art. There were 11 computers in total, one of them being my web, ftp, game, linux, and IRC server. Then a big screen t.v. on the other side of the room with a nice big couch in front of the t.v. **(Dominick Pirela, grade 12)**

### **Famosa Slough Project**

I was the project data manager of our group. I worked excellently with three other students in this Biology project. I helped plan, propose and produce an experiment that tested the effectiveness of the treatment ponds filtering fecal coliforms from the water at the Famosa Slough, which is located in Point Loma. We showed a Powerpoint presentation of our project to the Friends of the Famosa Slough, teachers, parents and students. **(Anabel Manuel, grade 11)**

### **Historical Fiction Project: Ryan's Struggle**

In my last term for this year, I was to write a historical fiction story. The story had to involve a time period in history. I chose the U.S. advancement into Cambodia to get rid of Communist property owned by North Vietnamese Communist people. After choosing a topic, I was to go through several steps before writing the story. It started out with a simple 3-sentence assignment that would sum up my story. This is to have a structure in what I'm building towards for my story. From there, I did a paradigm. For the paradigm, I divided my story into 3 acts, and within those acts, I inserted a plot point that would change the story in a new direction, leading to the next act. After so, I wrote up my story. Throughout the story write-up, I wrote up a bio on the hero and antagonist of the story. This was to get a stronger understanding of the goal that the main character of the good and bad guy were striving for. My climax and dialogue were also

worked on. I was to pick them and re-write it to a more effective piece. After several proofreadings and corrections, I reached the final product of the story. **(Quan Ton, grade 11)**

### **Revenge Ad**

During the first portion of the trimester, we were to choose an abstract noun. The project was to study the noun throughout history. My group and I decided to study revenge throughout time. We then composed our project through a magazine. Each of us researched and wrote articles relating to revenge from the 1400's-1800's, 1900's, and 1990's-present. We learned how to write articles. In the magazine, we also included adds, games, and other fun extras relating to revenge. **(Lindsay Cotter, grade 10)**

### **Moon Hoax**

Everything that the US recorded in history textbooks and government documental files about the moon landings is all faked. We never went to the moon...it was all filmed by NASA at a studio in the Nevada Desert. For example, one picture shows the US flag bending, rippling, and waving on the moon, even though there is no breeze. How can that be? Also, why aren't there any stars in the background of the pictures? Did NASA forget to include the stars for the background? Or was it just too much work to perfectly match the constellations?

Our whole project is very relevant to not only the '60s but today as well. If Thai and I are right (which we are) our entire society is based upon widespread conspiracies and corruption in our government, our country is living a LIE!!!! We connect our web of ideas to one main point: WE NEVER WENT TO THE MOON! As well as evidence to support our statements. We also connect our theory to why it is relevant to modern society. **(Thai Cao, grade 11)**