**A Fair to Remember**
By: Kimberly Kline, LEAPS Fellow

The winter quarter was a busy time in the Honors and GATE classes at SBJHS with all students required to participate in the school science fair. At the beginning of Winter quarter, students explored their scientific interests by completing online questionnaires which directed them to a specific subject area for their project which included chemistry, biology, engineering, physics, environmental science and behavioral sciences. The students were paired with one of the LEAPS fellows based on their interests for mentoring.

Students completed the project in multiple phases which included creating a hypothesis, gathering background research, designing an experiment to test the hypothesis, receiving review from LEAPS fellows, conducting the experiment, synthesizing the data, and evaluating the results in relation to real world application. The project was concluded with the writing of a scientific styled report and the creation of a presentation board.

The presentation boards were due on Thursday March 20, in time for them to be arranged by category in the multi-purpose room for judging by scientists from UCSB. A wide range of graduate students from UCSB from many departments were recruited to judge the projects that were most related to their field. The judges convened on Thursday after school to judge the projects on their scientific merit, creativity and the clarity of their logic and presentation. The judges were impressed with the broad range of projects on display and some of the creative approaches for data gathering.

**Light the FUSE!** By: Thomas Kuo, LEAPS Fellow

Light the FUSE and get ready for the second Family Ultimate Science Exploration Night of the year. Coming on April 16 at 6pm at Santa Barbara Junior High, FUSE will feature several science experiments for the entire family.

First, you will make your own silly putty and Oobleck. You will explore the fascinating properties of these substances that feel like a liquid one moment and a solid the next. You will also look at how speakers work, while at the same time, extracting your own DNA, bringing you one step closer to the mysteries in your genes. The last experiment will take you back to the days of Fahrenheit and Celsius. You will make your own personal thermometer set to your own scale. So please join us on Wednesday, April 16 and bring your whole family for the ultimate in science exploration.

**Sally Ride!**

1. Always dreamed of becoming a professional tennis player.
2. Received a degree in Physics and English at Stanford University.
3. After receiving a Ph.D. in Astrophysics, she answered a special ad at NASA.
4. She was the first woman to go into space and was on the Challenger three times.
5. She founded NASA’s Office of Exploration.

**_UPCOMING EVENTS_**

**UCSB Field trip** - April 8-9, 2008

**FUSE Night** - April 16, 2008

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**SBJHS 2008 Science Fair Finalists**

- **Behavioral Division**
  - 1st: Taryn Mjelde
  - 2nd: Sully Contreras
  - 3rd: Andrea Macias

- **Biology & Environmental Division**
  - 1st: Sophie Sterling
  - 2nd: Sophia Spann
  - 3rd: Savannah Stelzer
  - Elizabeth Gonzalez

- **Mechanical Division**
  - 1st: Dena Slaff
  - 2nd: Mackenzie Taylor
  - 3rd: Nick Clark

- **Physical Science Division**
  - 1st: Conner Karna
  - 2nd: Elliot Kingston
  - 3rd: Nathan Gibson

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**Fun Facts**

- The longest living cells in the body are brain cells which can live an entire lifetime.
- If you could throw a snowball fast enough, it would totally vaporize when it hit a brick wall.
- If you stretch a standard Slinky out flat it measures 87 feet long.
- Ten minutes of one hurricane contains enough energy to match the nuclear stockpiles of the world.
- The common goldfish is the only animal that can see both infra-red and ultra-violet light.

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**Let’s Explore Skateboards**

If you’ve ever assembled your own skateboard you have experience with grip tape. If you’re not familiar with skateboards, grip tape is the rough, usually black covering for the top of the deck. It can be cut to fit any board, or into various designs. Grip tape doesn’t just exist to keep your friends from slipping out of wood, their surface is smooth and slippery. When you add the rough grip tape, the friction on the surface is greater. That allows you to stay on the board. Some of your favorite tricks wouldn’t be possible without the additional friction from the grip tape.

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**5 Things You Did Not Know About…**

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About LEAPS

Let's Explore Applied Physical Science (LEAPS) engages UCSB graduate and undergraduate Fellows as instructors and mentors for inquiry-based science in Grade 8 classrooms. By establishing collaboration between Fellows, science teachers, and UCSB scientists in school classrooms, the LEAPS project implements hands-on, minds-on learning experiences in physical science.

LEAPS partners with the Endowment for Youth Committee in Santa Barbara to coordinate after school clubs at junior high sites. The Fellows also help younger students to prepare for Family Science Nights that foster community interest to science education and opportunities.

Fellows

Reggie Archer
Lindsay Gary
Anthony Karmis
Lina Kim
Kimberly Kline
Thomas Kuo
Amir Rahimi

Teachers

Marilyn Garza
Julie Kluss

UCSB Participants

Beth Gwinn
Fiona Goodchild
Wendy Ibsen
Samantha Freeman

Visit the LEAPS website: www.leaps.ucsb.edu
Send questions or comments to msgarza@msgarza.com

Fellow of the Month:

Mr. Archer

Mr. Archer is a Ph.D. Student in Geography at UCSB. While his family is from Haiti, he was born in New York, NY, but was raised in Miami, FL. Haitian and other Caribbean food is some of his favorite. He enjoys all sports, especially basketball and when he isn't hard at work, he loves to travel. Before coming to UCSB, Mr. Archer went to the University of Florida where he got a degree in Surveying and Mapping and a Master’s degree in Civil Engineering. Nowadays, He is interested in natural hazards and disasters, emergency response and recovery. He focuses on Geographic Information Science (GIS) and his research will explore the use of satellite images and mapping to monitor disaster recovery in New Orleans, LA after hurricane Katrina.

Ribbit: What is your favorite type of friction?

- Sliding, without it you can't slide.
  Alex Gonzalez

- Fluid, I like to make parachutes, it's fun to watch things fly.
  Endy Rangel

- Rolling, because it involves sports.
  Daisy Calles

- Falling, you can hear a "thud" when you fall.
  Luis Najera

- Rolling, cause it's fun.
  Edwin Rocha

See LEAPS in the Classroom for a description of friction

Friction

So, what is friction? Well, friction is the force of two objects in contact. In particular, there are three types of frictional forces you learned about in the classroom. The first is **sliding friction**, and it occurs when two solid surfaces slide against each other like you see in the first cartoon. The second is **fluid friction**, which is similar to sliding friction except that it occurs between a solid and a gas or liquid like a boat navigating on the ocean. Finally, the last type of friction is **rolling friction**, which is associated with the rotational movement of a wheel or other circular objects along a surface like the wagon on the cartoon.

UCSB - LEAPS

SBJHS – Science Department

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Stamp