

The Role of the Blood Bank

by Alex Burtson and Gabby Aligada

Importance: Blood is always in high demand. Donating is often overlooked. Increased donating is a necessity in order to save lives.



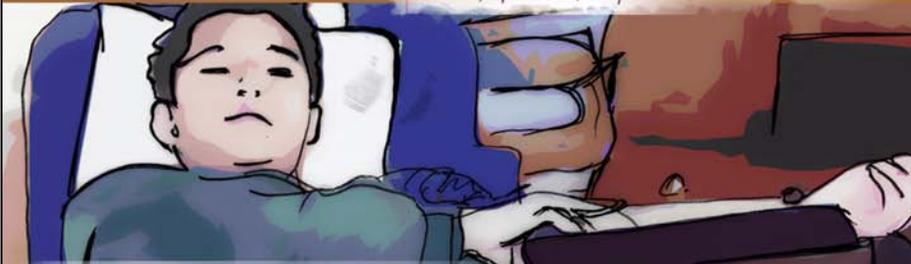
Donation: The average man and woman have 12 and 10 pints of blood in their bodies, respectively. One pint of blood per person is donated, which is capable of saving 3 lives. Individuals can donate whole blood, platelets, and/or plasma.

The Importance of Donation



Blood, Plasma & Platelets

Who Donates: Every potential donor must first be screened and tested for any potential bloodborne diseases. There are 3 types of donors: volunteer, replacement, and professional.



Process: Blood is screened for diseases such as HIV, Hepatitis, and West Nile Virus before it is transfused. It is refrigerated until needed. Blood is then distributed to hospitals according to demand.

The Process of Transfusion



The Blood Bank Project

Blair Hatch, Biology/Multimedia, High Tech High

Jeff Robin, Art, High Tech High

This project was a collaboration between the San Diego Blood Bank and HTH seniors, as well as between an art teacher and a biology/multimedia teacher. Divided into pairs, students explored *bloody* topics ranging from leukemia, sickle cell anemia and the Aids epidemic to the use of blood in film, the history of vampires, and the role of blood in religion. They then created a painting on a blood-related theme on a large piece of custom cut wood. A rectangular opening housed a laptop displaying a DVD presentation with audio and motion graphics they had designed to teach the community about their topic. Students' final projects were exhibited at the JETT Art Gallery in San Diego.

Teacher Reflection

This project signaled my return to science teaching in a partnership with our art teacher, Jeff Robin. The project allowed me to improve upon my early attempts, long ago, to have students create multimedia presentations in science. Additionally, I delivered traditional science instruction and assessment through lecture, weekly tests, lab dissection of a fetal pig and cat, a midterm and a final. The combination of traditional and project-based instruction offered both the breadth and depth required for college level science. Knowing that the art would be exhibited at a gallery served as excellent motivation for the students, and the well attended event was a community showcase for the school.

—Blair Hatch

Student Reflection

My classmates and I didn't just learn the crude essentials to create a movie, or learn the rules of mixing and conserving paint. We learned about the astounding life that blood brings to society. It travels through our heart, oxygenates our brains and bodies, protects us from diseases, simply keeping us alive. At the same time, we had the opportunity to share its message with our community. Without it we cannot strive, live, or even have the opportunity to give. When there are flaws, we have epidemics such as AIDS, or leukemia, or anemia. At the same time, blood is prevalent in entertainment. Without so much as a drop in action or horror movies, there would be no Hollywood. This opportunity was nothing like I have ever had, and looking back, it was the most work, but the most fulfilling project I've done in high school.

—Gabby Aligada, 12th grade

To learn more about this project and others visit the HTH Digital Commons and Jeff Robin's & Blair Hatch's digital portfolios at
<http://www.hightechhigh.org/>
<http://staff.hightechhigh.org/~jrobin/> and <http://staff.hightechhigh.org/~bhatch/>