

THE Lab REPORT

SHERMAN INDIAN HIGH SCHOOL

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Figure 1. Dr. Wheeldon (second from right) in his laboratory at UCR with his graduate student and our Sherman students.



Figure 2. Sherman students performing plasmid transformations of bacteria cells.

From The Editor

This newsletter was created to keep the parents of students enrolled in Biology informed about this course as well as current news in the Science Department and at our school. During November our Biology students investigated the Theory of Evolution and began exploring the DNA and the processes of transcription and translation. The DNA along with protein synthesis are the molecular basis which make all living organisms unique. In late November, four Honor Biology students were selected to visit and work for a day with Dr. Ian Wheeldon in his biotechnology laboratory at the University of California, Riverside (UCR) (Fig. 1). Professor Wheeldon is a faculty member in the Chemical and Environmental Engineering Department at UCR. Dr. Wheeldon's research involves creating new synthetic biological tools and protein technologies that can be used to solve current problems in protein engineering and biofuel production. Under the watchful eyes of Dr. Wheeldon and his graduate student, Sherman students Christina Hodge, Timara Gordon, Kiani Quiver, and Krista Wasson performed plasmid transformation and GFR protein purification (Fig. 2). The day was an enriching experience for our students which was made possible by the generosity of Dr. Wheeldon and UCR.

The Sherman family wishes you and your families a safe and enjoyable holiday season. The Lab Report will continue publication in 2017.

Focus on Faculty

In this issue our focus is on Ms. Gena Hasson who is one of our newer faculty members. Gena is a member of the Career Pathway Program and teaches Agricultural Science, Agricultural Biology, Floral Design (Fig. 3) and Freshman Pathway Circle. She is a Native Californian and found her calling in Agriculture while attending Covina High School. At Covina High she was an active member of the Future Farmers of America (FFA) organization and had various livestock projects including cattle, swine, lambs, and veal. In her senior year she received the State FFA Degree. Gena attended the University of Idaho to receive her teaching credential. She later returned to Covina High School and became a vocational agricultural teacher for five years. Gena started employment at Sherman last



Figure 3. Ms. Gena Hasson (far right) and her floral design class working on Christmas plant center pieces.

year. One of her goals this year is to charter the first ever FFA Chapter at Sherman. When asked what she likes

most about our students she replied “their openness and welcoming attitudes.”

Career Pathway Program

In 2010 a unique partnership was established between Sherman High School and the San Manuel Band of Mission Indians that created a career pathway program. This program has been maintained to date by the generous financial support of the San Manuel Band of Mission Indians. This program teaches Native American students technical skills that they can use in today’s workforce. The five career training areas at Sherman include: Public Service (PS) (police, fire, EMT, security); Health Science (HS) (nursing, pharmacy tech, medical assistant); Agricultural and Natural Resource (AN) (horticultural/land, floral design, animal science); Construction and Energy (CE) (construction trade, electronic tech, solar tech); and Hospitality and Tourism (HT) (tourism/travel, culinary, food prep, handling/safety). In this program students maintain a GPA of 2.0 or higher, meet regular graduation



Figure 4. Students of Brian Hayden's (far right) construction 2 class staining cabinet doors.

requirements, and obtain vocational skills and course completion certificates in each training area. In addition, selected students can serve in internship positions in each training area that allows students experience in the actual employment setting. At the present time there are six career pathway teachers with an additional teacher expected to start next year.

The current pathway instructors are: Mr. John Migaiolo (pathway program coordinator) and Mr. David Heard (PS); Ms. Susan Barkley (HS); Ms. Gena Hasson (AN); Mr. Brian Hayden (CE) (Fig. 4) and Ms. Lisa Rivera (HT). Currently over 70% of the students attending Sherman this year are enrolled in career pathway courses.

Native Fashion Show at Sherman

Last month the Sherman student body and staff were treated to an all-school assembly highlighting indigenous fashions (Fig. 5). Students from Ms. Julia Roubideaux indigenous fashion and design class proudly modeled their tribal and personally tailored clothing to the delight of the students and staff. As students modeled their clothing host Lorene Sisquoc described the tribal symbolism and imagery attribute to the various designs and colors. The hand-tailored clothing was stunning.

Other traditional activities held at Sherman include Talking Circle, Smudge Circle, gathering of boys and girls at the sweat lodge, cultural bearer speakers, basketry, the White Rose Singing Group, Two Boys Drum Group, and the Apache Crown Dancers. Last year the Sherman teepee was erected by the Clark Cultural Center to further facilitate Native culture and pride. Students use the teepee for prayer, smudging, and talking circles.



Figure 5. Julia Roubideaux (second from left) and her students at the Native Fashion Show.

