

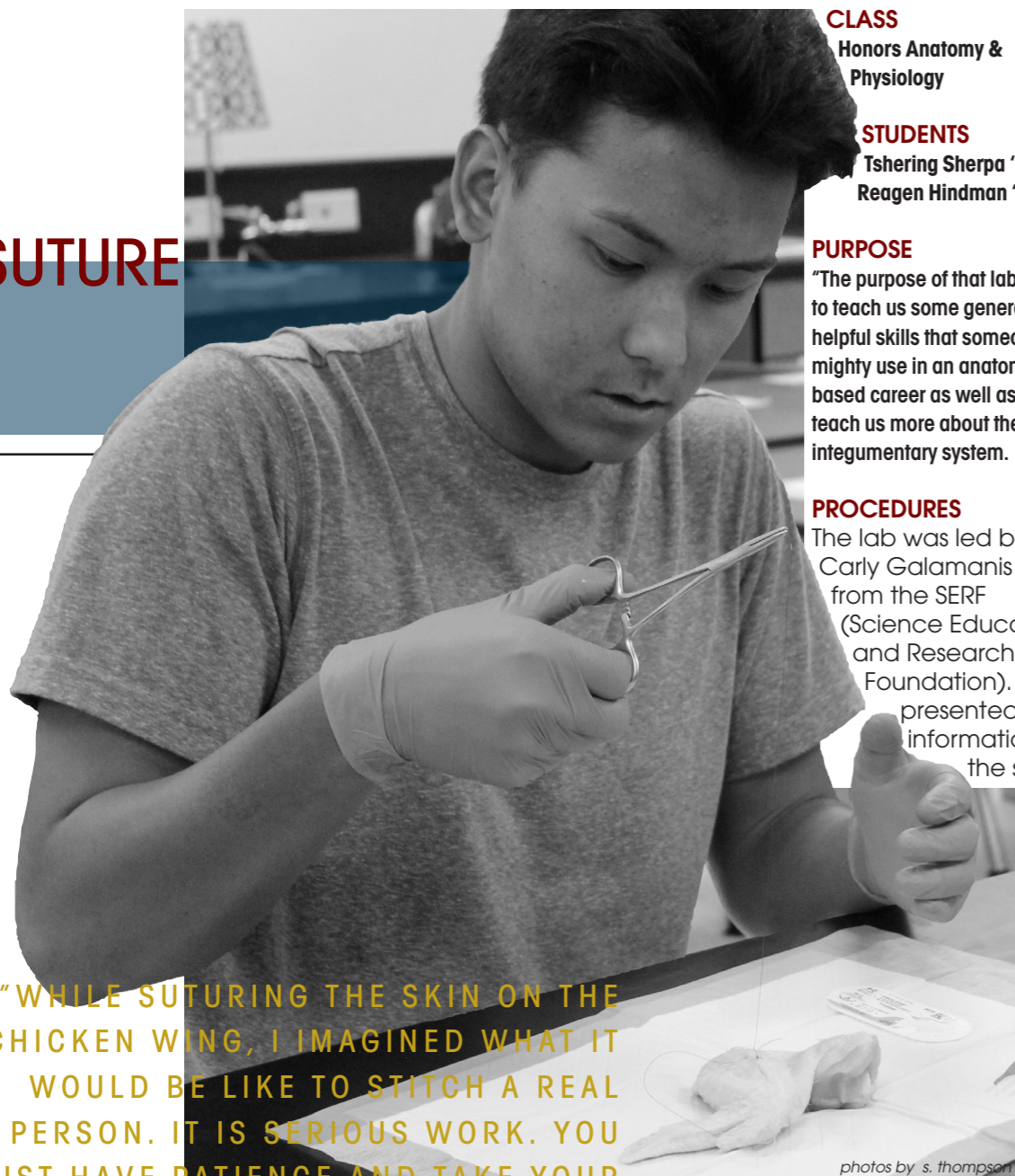
Look Closely

Students learn aspects of science knowledge through experiments

stories by s. rolfs & j. mahaffey
designed by a. sianis

and get to see OUR SCIENCE LABS

SUTURE



"WHILE SUTURING THE SKIN ON THE CHICKEN WING, I IMAGINED WHAT IT WOULD BE LIKE TO STITCH A REAL PERSON. IT IS SERIOUS WORK. YOU MUST HAVE PATIENCE AND TAKE YOUR TIME SO YOU CAN SEAL THE WOUND."
TSHERING SHERPA '20

CLASS
Honors Anatomy & Physiology

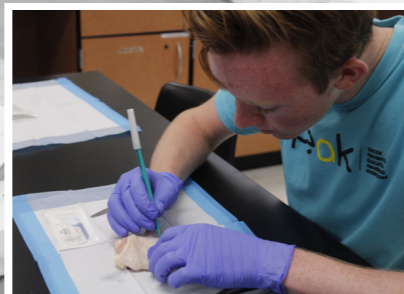
STUDENTS
Tshering Sherpa '20 & Reagen Hindman '21

PURPOSE
"The purpose of that lab was to teach us some generally helpful skills that someone mighty use in an anatomy based career as well as to teach us more about the integumentary system."

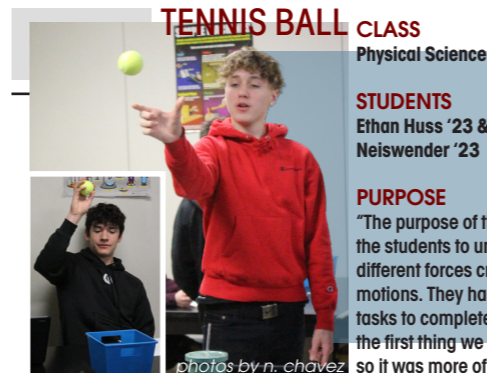
PROCEDURES
The lab was led by Carly Galamanis from the SERF (Science Education and Research Foundation). She presented information on the skin

and types of wounds that would be sutured, then showed a video of the technique. Students then received a chicken wing, took their kits and cut into the chicken wing with a scalpel. Then took scissors and thread to stitch is back together.

ENJOYMENT
"Students really liked learning suturing skills. Many students have had stitches so they got to practice a technique they had done on themselves.," **Aarika Capra, science teacher, said.** "Suturing is an important technique employed by many medical professionals, so it's a real skill, so it's a real skill that students may use in the future. It could also help them in an emergency situation they may find themselves in."



photos by s. thompson



TENNIS BALL CLASS

Physical Science

STUDENTS
Ethan Huss '23 & Brayden Neiswender '23

PURPOSE
"The purpose of the lab was to get the students to understand that different forces create different motions. They had a variety of tasks to complete. This lab was the first thing we did with this unit so it was more of an inquiry style

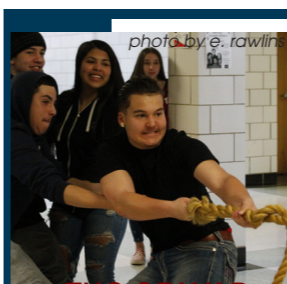
activity. Inquiry style activities have a purpose and an end goal but the way the students get to that goal is up to them. This allows them to take ownership of their method and their learning while investigating science," **Elizabeth Walls, science teacher, said.**

PROCEDURES
1. Put the bucket on the table and grab the tennis ball.
2. Apply only one force to get the tennis ball into the

bucket. Force applied on the ball cannot extend past 10 cm from the edge of the table.
3. Place a piece at the halfway point on your table. Apply a force that the ball passes the tape but does not leave the table.
4. Stand a book on the table. Apply a force to get the ball past the book and into the bucket. (The ball must hit the table

in front of the book and behind it.
5. Create your own using materials provided and up to two additional materials found in the classroom.

ENJOYMENT
"I like that we got to experience the lab but also try our own way of doing the lab," **Huss said.** "It was cool that we got to throw the ball and experiment how much force we had to use."



TUG OF WAR CLASS

Physical Science

STUDENTS
Leyna Docket '23, Aithen Dohrer '23, Natalya Mendoza '23, & Rovin Soriano '22

PURPOSE
"It wasn't really a lab but a demo to introduce forces and motion. The purpose was to get the students to visualize balanced and unbalanced forces. The forces were balanced when both teams were pulling with equal strength and unbalanced when they started competing and one team was pulling with more force than the other. It was also a good way to get them thinking about friction as a force resisting a push or a pull since several members of the losing team would inevitably be skidding across the floor," **Stephanie Morse, science teacher, said.** "It got pretty loud in the hallway so we need to do it outside next time. Kids really enjoyed it."

PROCEDURES
1. Divide the students into two teams.
2. Have people on each side hold the rope without pulling it.
3. When the teacher says, "Go," each side should pull as hard as they could until one team is able to pull the rope out of the neutral zone.
4. Discuss the demo.



STOICHIOMETRY CLASS

Honors Chemistry

STUDENTS
Austin Hill '22, Sarah Becerra '22, Holly Poole '22, Celeste Tari '22 and Kira Wallin '22

PURPOSE
"The purpose of the lab was to analyze a double displacement reaction and to analyze a precipitate that goes through it," **Hill said.**

PROCEDURES
1. Measure the mass of a mixture containing an inert impurity.

2. Add water to the mixture and an active ingredient that reacts with one mixture component.
3. The precipitate left was filtered, rinsed, and measured for mass.
4. The mass of the pure product allowed the students to calculate the percentage of the active ingredient in the original mixture.

ENJOYMENT
"Students saw the reaction, measure what goes in and what goes out and apply the sometimes painful process of Stoichiometry to answer a question about that reaction mathematically. The result is also a measure of how well they conducted the experiment because they can compare it to the theoretical amount," **Meghan Frenzel, science teacher, said.**

HONORS ANATOMY & PHYSIOLOGY CLASS

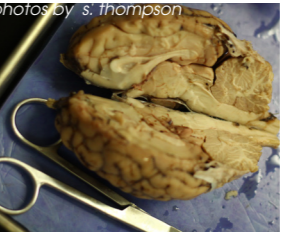
STUDENTS
Alexia Betancourt-Aragon '20, Nathan Trujillo Aragon '20, Caitlin Fabel '21 & Kaitlyn Martinez '21

PURPOSE
"The purpose was to compare the human brain to a sheep brain and identify different structures on the sheep brain since it is so similar to the human brain. It really helped my memorization," **Martinez said.**

PROCEDURES
This lab had a guided procedure and diagrams that students used to guide them in identifying brain and Nervous System structures.

ENJOYMENT
"Most students were very interested in seeing the parts of the brain and they were surprised by how

small the sheep brain is. For some, dissecting is not something they enjoy but they were able to learn about brain structures. Labs are really important for application of knowledge and hands-on skills. Dissection helps students see the interrelationships between organs and tissues and helps them understand complexity of the body," **Aarika Capra, science teacher, said.**



SHEEP BRAIN



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