

Growing Biology Students

Few people say, “This job does not seem like ‘work’ when I am here.” Ian Townley, Upper School Biology teacher at Saint George’s, is one who does. “I have such motivation to do my absolute best each and every day.”

Ian’s classroom is one with energy. He makes an effort to make science fun by encouraging creative, critical thinking among his students. In the past, he has required students to write and perform a song related to cell mitosis. Ian says he likes to encourage a play mentality to make science more approachable.

The Biology Lab is familiar territory for Ian, who worked as a lab technician after earning a B.A. from Lewis and Clark College in Portland. Then he completed his Ph.D. at UC Santa Barbara while also teaching in a developmental biology lab. He used those qualifications to secure a job at the University of New Orleans, where he taught classes in Nutrition, Anatomy and Physiology, and Cellular Physiology.

Ian and his wife are both originally from the Spokane region and hoped to move back to the area. Ian’s wife suggested he look into a job opening at Saint George’s because she knew that it was not a typical high school. Drawn to the educational focus of the school, he decided to apply. In the past two-and-a-half years since then, he has found his niche teaching high school students. “At the high school level, I am able to work with students both in the classroom and in the lab, whereas at the college level they are often separated.” Ian says the connection of the two results in knowing his students better.

Two things at Saint George’s continuously exceed Ian’s expectations. “One is the amount of support and intellectual freedom provided by the administration and faculty to be the best teacher you can become,” he says. “The second is the level of student engagement and enthusiasm for learning.” He says

that by keeping things lighthearted in the classroom, students feel more comfortable when asked to participate in more challenging assignments in the lab. “I want them to know that failure is okay and that’s how learning happens”.

Thanks in part to Ian, the Saint George’s Biology Lab is now home to the UV-Vis Spectrophotometer. While the name may sound intimidating, this cutting edge equipment allows SGS students to examine DNA and determine whether or not their extractions have been successful.

Ian believes that understanding how to use this equipment in the lab is crucial for Saint George’s students. “All of this is vital to our mission of making sure our students are prepared for college, because the field of biology is rapidly becoming dominated by molecular genomics. The techniques and tools used in modern DNA extraction are now routine in college.”

The Saint George’s biology lab also houses other tools such as a centrifuge that spins at 20,000 times the force of gravity. Ian notes that “the school has been committed to improving and upgrading the resources available to students in the sciences. Using these tools helps students stay up-to-date on the new technologies used in science careers.” Ian says Saint George’s students can engage in “modern biological lab investigations such as testing foods for the presence of genetic modification, determining the species of a plant using genetic barcoding, or investigating the biochemistry of photosynthesis.”

Ian wants all of his students to feel at ease in a collegiate biology lab. “My personal goal is to ensure that any student graduating from SGS could step into a college research lab, from Day One, and possess the skills and knowledge to succeed in that environment.”

— *Savanna Atherton (Whitworth ‘16),
SGS Communications Intern*

Ian Townley Prepares Students for College Biology Labs



Above: Ian’s instructions, paying attention in the Bio Lab, testing a drop of DNA.