Student Profile: Joshua Abordi

Joshua is one of the nine students who have been selected to represent Australia at the 2024 International Science Engineering Fair which runs from the 11th until the 17th of May in Los Angeles California; Joshua is the only student from Western Australia to be selected.

Joshua and Amy; The Mount Lawley SHS School Captains for 2024

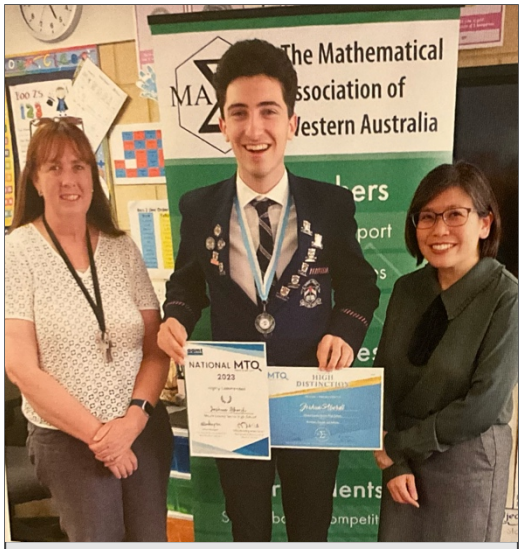
The ISEF is the world's largest pre-collegiate science and engineering fair described as "The Olympics of Science Fairs" where young scientific minds from around the world come together to display their talent and compete for nearly USD8 million in awards.

Joshua's attendance would be an opportunity to showcase some WA home-grown STEM excellence from a student attending a Government School.

Joshua would be the first Western Australian student to attend ISEF in the 25 years of Australia's involvement with the Fair.

Joshua Abordi is a dedicated leader and active member of the Mount Lawley Senior High School community. Currently serving as a School Captain, Joshua has demonstrated exceptional leadership skills and commitment to his peers. His two-year tenure on the School Board showcases his passion for making positive changes within the school environment. Throughout his time at Mount Lawley, Joshua has been a consistent presence in student leadership, having served as a student councillor for nearly his entire academic journey. Moreover, his active participation in the development of the school Yearbook, from writing articles to designing page layouts and editing photos, highlights his creativity and commitment to the completion of a project. Joshua's involvement in crafting the school Yearbook extends beyond his personal contribution; he has also played a crucial role in teaching these skills to other students, passing on his knowledge and expertise. Joshua has a profound love for STEM, particularly Mathematics, which he actively promotes within the school community. With his unwavering dedication and leadership abilities, Joshua continues to inspire and uplift those around him, particularly in the realm of STEM, motivating fellow students to pursue their passions in Science, Technology, Engineering, and Mathematics.

In his project “Resistors, Fractals, and Infinity” Joshua delves into the abstract mathematics that emerge when resistors -a simple electronic component used in almost every electronic device- are arranged into grids and lattices that stretch on infinitely. Throughout his exploration of this problem Joshua developed mathematical methods for representing these abstract structures and for solving physical values associated with them. Whilst this may all seem very abstract, the methods that Joshua has developed may find use in a variety of fields, from the design of antennas -like those found in your phone- to the development of irrigation systems to water crops and hydrate livestock.



Joshua receives a High Distinction for his MTQ project.

In 2023 Joshua was awarded the Peter Sparbier Scholarship for Mathematics, a prestigious scholarship awarded to the Year 11 student with a demonstrated passion for mathematics to pursue their study of mathematics to the highest levels.

Joshua’s project for AUSSEF is an extension of his submission for last year’s Maths Talent Quest (MTQ), a competition where students explore a mathematical problem and create a project from their findings. For his MTQ project, Joshua received a High Distinction within the state and a national commendation.