

## PHYSICAL SCIENCES

In the challenge of problem solving and applying my logic to a new situation, I find a satisfaction like no other. I can't help but want to explain why things are as they are and how they work. This has always been part of me, as far back as I remember. It is from this, I feel, my passion for science and mathematics emerged. This passion leads me to question the world around me and to try to increase my understanding of the everyday world and the extraordinary.

The physical sciences especially inspire my interests. The incredible scale that the physical world must be understood, from the mass and unimaginable forces of black holes to the interactions of single atoms and quantum objects, is an exhilarating concept. To study further in a limitless and constantly evolving branch of science is the perfect opportunity for me to challenge and expand my understanding and abilities.

An insatiable curiosity and thirst for knowledge drives my continued devotion to the physical sciences. I find myself spending whole nights researching topics that interest me, and at the end of it all, still wanting to learn more.

Mathematics has also been important to me throughout my life. As mathematical problems grow more complex and difficult I find them more rewarding, and so my passion for mathematics develops. I am always trying to apply my mathematical and physical understanding to my life, and am always elated when this allows me to deepen my understanding of the things around me.

Always wanting to help others to learn and improve, and to put use my mathematical aptitude to good use, I volunteer to tutor students in my free time. Planning lessons, exercises and tests I work to strengthen their weak points and reinforce their strengths. I find great pleasure in helping others in my free time; my friends and classmates will often come to me for help with their work. I am a school prefect and am working to actively reduce bullying on my school bus.

In my free time I have a number of hobbies including playing the trumpet, playing rugby and computer programming and game design. Writing programs has been an opportunity for me to test and develop my logical thinking and problem solving skills. It is also the perfect environment to apply my physical and mathematical knowledge I also enjoy the creative side of game design, bringing the characters and scenes of my imagination to life.

I have played rugby from a young age, the physical nature of rugby training and games and the need for performance under pressure has always appealed to me. In playing Rugby I feel that my ability to work as part of team has improved considerably, and I have developed my understanding for the need for working together as well as individual performance.

I play first trumpet in Greenhill's award winning school orchestra and have done since 2004, this year we were awarded joint-first in the national Music For Youth festival. I have also played in various other ensembles including big band, concert orchestra and wind band. I am taking my grade-seven trumpet exam this December, and hope to take my grade-eight before leaving school. Playing the practical part of the exam on my trumpet, I attained A\* grade in my GCSE music exam. Although playing the trumpet has required dedication and self-motivation to practice and improve in my own time, I feel it has been more than worth the effort as the joy I've experienced in playing and creating music has been immense.