

Intention of Biology

Biology is the fastest developing branch of Science. Our curriculum embeds current research, creating a rich and varied learning experience for our students. This encompasses Ecology, Physiology, Microbiology and Biochemistry leading to a broad knowledge base. This deeper understanding of biology allows the student to appreciate and ultimately enjoy the subject even more. The study of Biology at Melton Vale is a blend of conceptual learning and the application and appreciation of this theory in practice and research. These are critical skills to enable the success of our students in the next stage of their education or career.

Building on the fundamentals taught at GCSE, we expect our students to be champions of accurate understanding of biological concepts. We live in a society that often has deep rooted misconceptions, which we deliberately address within our curriculum. We nurture our students' curiosity towards recent scientific advances, such as how you live your life today can impact the health of your grandchildren via epigenetic mechanisms.

Biology not only seeks to understand organisms, but allows us to apply our knowledge to help sustain and improve our planet. Our curriculum teaches our students to the relevance of biology to our diverse society and its wellbeing. This includes risk mitigation for cardiovascular disease, the climate crisis, the ethics of blood doping in sport and the political impact of these issues.

Within our curriculum we choose to teach the historical context and advancement of Biology because it allows greater understanding of the fluid nature of the subject and the impact of new technologies on our scientific knowledge of the world. Biological research has, and can lead, to possible solutions for some of our greatest challenges. It is within this wider context that students have to carefully consider the potential causes of scientific bias and its corresponding motives.

Biology students at MV become increasingly responsible citizens who hold a detailed and accurate understanding of a broad range of biological processes at work within the world around us. They can analyse and evaluate information with precision, quickly establish valid facts and trends, discard unreliable data and as such accurately explain scientific causation, in their quest to understand more. We strive to enable our students to leave MV16 with an appreciation of the entire subject, where they don't just see the individual components, but instead see how each concept area links to all the others allowing them to understand the subject on a holistic level.