

Biology, Grade 11 College Preparation (SBI3C)

This course focuses on the processes that occur in biological systems. Students will learn concepts and theories as they conduct investigations in the areas of cellular biology, microbiology, genetics, the anatomy of mammals, and the structure of plants and their role in the natural environment. Emphasis will be placed on the practical application of concepts, and on the skills needed for further study in various branches of the life sciences and related fields. Prerequisite: Science, Grade 10, Academic or Applied *All schools except Alexander Henry.*

Biology, Grade 11 University Preparation (SBI3U)

This course furthers students' understanding of the processes that occur in biological systems. Students will study theory and conduct investigations in the areas of biodiversity; evolution; genetic processes; the structure and function of animals; and the anatomy, growth, and function of plants. The course focuses on the theoretical aspects of the topics under study, and helps students refine skills related to scientific investigation. Prerequisite: Science, Grade 10, Academic *All schools except Alexander Henry. Also offered as part of the French Immersion Program at SJD.*

Chemistry, Grade 11 University Preparation (SCH3U)

This course enables students to deepen their understanding of chemistry through the study of the properties of chemicals and chemical bonds; chemical reactions and quantitative relationships in those reactions; solutions and solubility; and atmospheric chemistry and the behaviour of gases. Students will further develop their analytical skills and investigate the qualitative and quantitative properties of matter, as well as the impact of some common chemical reactions on society and the environment. Prerequisite: Science, Grade 10, Academic *All schools except Alexander Henry. Also offered as part of the French Immersion Program at SJD. Offered at alternate years in Hornepayne.*

Environmental Science, Grade 11, Workplace Preparation (SVN3E)

This course provides students with the fundamental knowledge of and skills relating to environmental science that will help them succeed in work and life after secondary school. Students will explore a range of topics, including the impact of human activities on the environment; human health and the environment; energy conservation; resource science and management; and safety and environmental responsibility in the workplace. Emphasis is placed on relevant, practical applications and current topics in environmental science, with attention to the refinement of students' literacy and mathematical literacy skills as well as the development of their scientific and environmental literacy. Prerequisite: Science, Grade 9, Academic or Applied, or a Grade 9 or 10 locally developed compulsory credit (LDCC) course in science *Bawating, CASS, SJD, WC Eaket, and Elliot Lake only.*

Physics, Grade 11 University Preparation (SPH3U)

This course develops students' understanding of the basic concepts of physics. Students will study the laws of dynamics and explore different kinds of forces, the quantification and forms of energy (mechanical, sound, light, thermal, and electrical), and the way energy is transformed and transmitted. They will develop scientific-inquiry skills as they verify accepted laws and solve both assigned problems and those emerging from their investigations. Students will also analyse the interrelationships between physics and technology, and consider the impact of technological applications of physics on society and the environment. Prerequisite: Science, Grade 10, Academic *All schools except Alexander Henry and Hornepayne. Also offered as part of the French Immersion Program at SJD.*