Orangeville District Secondary School

**Internal Systems I**

Organ systems have specific structures and functions to support homeostasis

***Question: Can we live successfully without an organ system?***

***(Case Studies)***

**SBI 3C**

**Units**

Big Ideas

Thinking Questions

Course Code: SBI 3C1 Course Title: Grade 11 College Biology Prerequisite: Grade 10 Applied Science

Course Description

This course focuses on the processes that occur in biological systems. Students will be introduced to, conduct investigations in and think critically in the areas of internal systems, cellular biology, microbiology and genetics. Emphasis will be placed on the practical application of concepts and the skills needed for further study in various branches of the life sciences and related fields.

**Nutrients and Metabolism**

Energy metabolism includes processes to support homeostasis in plants and animals though the use of macromolecules

***Question:***

***Can you justify GMO’s? (GMO Debate)***

University of Guelph Trip

**Internal Systems II - Dissection**

Foetal pig anatomy can promote further medical advancements to support human health

***Question: Defend why humans should accept pig heart transplants?***

**Cellular Biology**

Cells support homeostasis with specific structures and functions that react to changing environmental conditions

***Question: Defend why you feel the cell membrane is efficient at maintaining homeostasis.***

**Genetics**

Biotechnology tools have a variety of social, environmental and ethical implications.

**Question**: ***Should biotechnology be allowed to design future generations?***

**Microbiology**

Characteristics of microorganisms can support or harm the environment & human health

***Question: Justify how microbes can be both helpful and harmful to human health.***