

## LIFE SCIENCES 11 COURSE OUTLINE

**PREREQUISITES:** You should have achieved at least a C+ in Science 10 (especially the chemistry and biology units). You are now senior high school students and are expected to handle much more material in greater depth. The ability to memorize a lot of content in a short amount of time will be important to have success in the course.

**COREQUISITE:** Chemistry 11 is recommended, as we will be doing some biochemistry in the course.

### **REQUIRED MATERIALS**

**TEXTBOOK:** Miller and Levine Biology – this is a reference for home use and will not really be used in class.

- o lined paper, multi-coloured pens, pencils, ruler...
- o calculator for microscope work
- o camera for microscope work or dissections

### **EVALUATION**

A *rough* breakdown of the value of marks within each reporting period is as follows:

<b>TESTS:</b>	60%
<b>QUIZZES/LABS/HOMEWORK:</b>	40%

### **CONTENT**

#### **UNIT 1: CELLS AND LIFE HISTORY**

- Cell structure and function
- Energy Transformations in cells
- Cell cycle
- DNA structure
- DNA replication
- Protein synthesis

#### **UNIT 2: EVOLUTION**

- Evidence of macroevolution
- Adaptations to changing environments
- Changes in DNA
- Natural Selection
- Speciation
- Mechanisms of macroevolution

#### **UNIT 3: CLASSIFICATION & TAXONOMY**

- Taxonomic principles for classifying
- Binomial nomenclature
- The fossil record
- Trends in complexity among various life forms
- Evidence for phylogenetic relationships
- Prokaryote classification

#### **UNIT 4: 6 KINGDOMS**

- Survey of prokaryote, protist, fungi, plant and animal groups
- Anatomy and Physiology (form and function)
- Comparisons between plant group structures
- Comparisons between animal group structures

## **STUDENT EXPECTATIONS**

### **Attendance Policy**

- **Be on time** – if you are late, the door will be closed. Wait outside quietly and you will be let in when it is appropriate. If there is a quiz or test that day, you will not be provided additional time!
- **Pay attention:** No doing other class work, sketching, chatting with friends, using electronic devices, etc. as this is rude to me and distracting to your classmates.
  - a) Missed Quizzes: Pending submission of a valid note, you may be omitted from the quiz. If no note/excuse is given, a mark of zero will be assigned. It is your responsibility to get the missed notes from a friend so that you don't fall behind.
  - b) Missed Tests: These must be made up at the earliest date possible and students must provide a parent's note to have the opportunity to write an alternate test. If no valid note/excuse is given, a mark of zero will be assigned.
  - c) Late Homework/Assignments: 10% will be deducted each day. After 3 days late, the maximum attainable mark is 50%. Weekends count as one day.

### **Electronic Devices**

- Please read the student handbook requiring the VSB's position on this.

### **Food and Drink**

- Liquids with a lid are allowed in the laboratory. Any food brought into the classroom may be thrown away without question (especially on lab activity days).

**WEBSITE:** <https://mrleehamber119.wordpress.com>

You are responsible for checking this in the evenings as I usually put important updates on quiz/test dates, and address issues brought up in class. In addition, you will find answers to homework and review worksheets, **plus** tips for quizzes and tests.

**NOTE:** Class notes will **NOT** be put online unless there are extenuating circumstances. It is your responsibility to attend class to get the notes.