

# **Dalian Maple Leaf International School** Life Sciences 11



## **Course Overview:**

Biology is a scientific discipline that studies a variety of organisms. It is accepted that major themes exist in biology, and the use of these can provide a good organization for helping us study biology.

| 1.        | The C                 | ell and DNA:  |  |
|-----------|-----------------------|---|--|
|           |                       | Explain the basic functions of each cellular component  |  |
| 2.        | Taxonomy & Evolution: |   |  |
|           |                       | Identify the hierarchical classifications of biological taxonomy  |  |
|           |                       | Describe the process of evolution   |  |
| <b>3.</b> | Ecolog                | gy:   |  |
|           |                       | Analyze the functional inter-relationships of organisms within an ecosystem   |  |
| 4.        | Micro                 | biology:  |  |
|           |                       | Evaluate the evidence used to classify viruses as living or non-living  |  |
|           |                       | Analyze bacteria as a lifeform at the prokaryotic level of organization   |  |
|           |                       | Evaluate the effectiveness of various antibiotics, disinfectants, or antiseptics on bacterial cultures                                    |  |
| 5.        | Plant                 | and Animal Biology:   |  |
|           |                       | Analyze how the increasing complexity of algae, mosses, and ferns represent an evolutionary continuum of adaptation to a land environment |  |
|           |                       | Analyze how the increasing complexity of gymnosperms and angiosperms contribute to survival in a land environment                         |  |
|           |                       | Analyze how the increasing complexity of animal phyla represents an evolutionary continuum  |  |
| 6.        | Science               | e Fair:   |  |
|           |                       | Conduct an experiment using scientific method   |  |

# To

|         | Topics             |
|---------|--------------------|
| Unit 1  | The Cell and DNA   |
| Unit 2  | Evolution          |
| Unit 3  | Ecology            |
| Unit 4  | Microbiology       |
| Unit 5  | Plants and Animals |
| Project | Science Fair       |

## **Assessment of Student Learning**

| Category           | Semester |
|--------------------|----------|
| Assignments & Labs | 30%      |
| Quizzes            | 10%      |
| Tests              | 30%      |
| Science Fair       | 10%      |
| Final Exam         | 20%      |

## **School Values**

Respect Responsibility Honesty Hard work

### **Classroom Rules and Expectations**

- 1. <u>Cell phones</u> are prohibited to use in class and must be placed in cell phone pockets at the beginning of each class session. Cell phones will be taken away and dropped off at Room 330 if used during class.
- 2. Being on time to class is essential to student success, and consequences will be put in place for students who are regularly tardy.
- 3. On time completion of assignments and homework is a necessity for the successful completion of this course, students who do not complete their work on time will be put on an academic contract and be required to attend tutorials as scheduled by the teacher. Failure to complete contracts and/or tutorials will require additional assessments to be completed to successfully pass the course.
- 4. <u>Honesty</u> is highly valued in the class. It is expected that students hand in their <u>own</u> work. Cheating and plagiarism may result in severe academic consequences.
- 5. Any instances of breaking any of the school's behavioral or academic rules (see student handbook) will be dealt with according to the school's intervention policies.
- 6. Students must come to class with the appropriate materials each day, and will not be permitted to enter the class unless they comply.
- 7. Students are encouraged to constantly question the quality and accuracy of the information they are being presented.
- 8. Students are encouraged to participate in class discussions on ethical and moral issues in science in our modern society.
- 9. Students are encouraged to bring ideas forward about what interests them in biology during open discussion time.

#### **Attendance Policy**

- 10. If you miss 5 blocks, you will receive an attendance contract.
- 11. If you miss 8 blocks, you will be withdrawn from the course (see student planner for more details).

#### **Hall Pass Policy**

- 12. Only one student is allowed to leave the room at a time, and he/she must have the hall pass that belongs to the individual's classroom instructor.
- 13. No washroom breaks 10 minutes before the class ends as well as from 11:00 AM 12:10 PM.