École Secondaire LAURIER MACDONALD High School
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COURSE STANDARDS AND PROCEDURES

COURSE:

Secondary 4 Environmental Science 558-444

CLASS RESOURCES: Practical Guide, Study Guide and Observatory: The Environment

COURSE DESCRIPTION:
Secondary 4 Environmental Science is a course for secondary 4 students who wish to continue in the Sciences at the post-secondary level. This course is a prerequisite for Physics and Chemistry in secondary 5. There are various enriched topics that are based off Secondary 4 Science & Technology which will be explored in this course.
The course involves hands-on, inquiry-based learning to develop problem solving skills, to emphasize the application of science knowledge, and to teach communication using scientific and technological language.

In this course, students will also become familiar with standard laboratory practices and be encouraged to apply theoretical concepts in a practical way through lab work.

MYP AIMS ADDRESSED BY THE COURSE:

MYP Course Aims	MEQ Course Objectives
Develops skills to design and perform investigations, evaluate evidence, and reach conclusions	Competency 1: Seeks answer or solutions to scientific or technological problems
Cultivate analytical inquiring and flexible minds that poses questions, solves problems, construct explanations, and judge arguments.	Competency 2: Makes the most of his/her knowledge of science and technology

FUNDAMENTAL IB CONCEPTS: - Holistic learning: While teaching Ecotoxicology, students explore the effects of contaminating bodies of water and the detrimental issues it causes to food chains. Mathematics is also incorporated in different topics such as molar concentration, electricity and energy.

- Communication: Students will conduct labs and complete hands-on activities and assignments in which they will have to use the appropriate scientific language.

KEY INSTRUCTIONAL STRATEGIES/APPROACHES TO LEARNING: - The ATL that will be focused on is critical thinking. Students will analyze and evaluate issues and ideas by gathering and organizing relevant information to formulate an argument, and interpret data to draw reasonable conclusions and generalizations. This will be achieved by incorporating various inquiry-based activities throughout the year.

IB MYP LEARNER PROFILE:- Knowledgeable: During the inquiry-based activities, students will be asked to use their previous knowledge on different scientific concepts in order to solve a new problem.

- Inquirers: Students will develop their skills for inquiry.

FORMATIVE & SUMMATIVE ASSESSMENT INCLUDING MYP ASSESSMENT:

<table>
<tr><th colspan="3">Term 1</th></tr>
<tr><td>Competencies targeted</td><td>Evaluation methods</td><td>Timeline</td></tr>
<tr><td>Competency 1: Theory; 60%

Competency 2: Practical; (Labs) 40%</td><td>May include, but not limited to:
-Quizzes
-Tests
-Lab reports
-Assignments
-Homework</td><td>To finish by:
November 6th</td></tr>
<tr><td>Communication to students and parents</td><td colspan="2">Materials required</td></tr>
<tr><td>Curriculum Night

Progress report

Report card

Verbal/Written communication, telephone/email may be on an as needed basis</td><td colspan="2">-Pens/Pencils/Highlighters
-Notebook/Loose leaf and binder
-Scientific calculator
-Study Guide
-Practical Guide</td></tr>
<tr><td>IB MYP Criterion</td><td colspan="2">Examples of assessment/feedback both formative and/or summative</td></tr>
<tr><td>• A: Knowing and understanding
• B: Inquiring and designing
• C: Processing and evaluating
• D: Reflecting on the impacts of science</td><td colspan="2">-Quizzes
-Tests
-Lab reports
-Assignments</td></tr>
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Term 2		
Competencies targeted	*Evaluation methods*	*Timeline*
Competency 1: Theory; 60% Competency 2: Practical; (Labs and Design cycle) 40%	May include, but not limited to: -Quizzes -Tests -Lab reports -Assignments -Homework	To finish by: February 6th
Communication to students and parents	*Materials required*	
Report card in February Verbal/Written communication, telephone/e-mail may be on an as needed basis	-Pens/Pencils/Highlighters -Notebook/Loose leaf and binder -Scientific calculator -Study Guide -Practical Guide	
IB MYP Criterion	*Examples of assessment/feedback both formative and/or summative*	
• *A: Knowing and understanding* • *B: Inquiring and designing* • *C: Processing and evaluating* • *D: Reflecting on the impacts of science*	-Quizzes -Tests -Lab reports -Assignments	

Term 3		
Competencies targeted	*Evaluation methods*	*Timeline*
Competency 1: Theory; 60% Competency 2: Practical; (Labs and Design cycle) 40%	May include, but not limited to: -Quizzes -Tests -Lab reports -Assignments -Homework -Lab exam -Theory Exam	To finish by: June 17th

Communication to students and parents	*Materials required*
Report card in June Verbal/Written communication, telephone/e-mail may be on an as needed basis	-Pens/Pencils/Highlighters -Notebook/Loose leaf and binder -Scientific calculator -Study Guide -Practical Guide
IB MYP Criterion	*Examples of assessment/feedback both formative and/or summative*
• *A: Knowing and understanding* • *B: Inquiring and designing* • *C: Processing and evaluating* • *D: Reflecting on the impacts of science*	-Lab exam -Theory exam

Additional Information/Specifications
***NOTE THAT THE WEIGHTING OF THE FINAL EXAM IS SUBJECT TO CHANGE ☐ This course does not have a final exam. The final course grade comes entirely from the school course grade. ☐ This course has a final exam administered by the English Montreal School Board. The final course grade is determined by taking 70% of the school course grade and 30% of the school board exam. ☐ This course has a final exam administered by the *Ministère de l'Éducation du Québec* (MEQ). The final course grade is determined by taking 50% of the school course grade and 50% of the MEQ exam. Please note that the final course grade is subject to MEQ moderation.