



COURSE DESCRIPTION 2011-2012

COURSE NAME:	Science and Technology	LEVEL:	Cycle 1, Year 2
COURSE CODE:	555 – 208	PERIODS PER CYCLE:	6
TEACHER:	E-MAIL ADDRESS:		
Lynn Rizzuto	rizzuto.l@qaa.qc.ca		

Subject Area Competencies:

1.	<p>To seek answers or solutions to scientific or technological problems To communicate in the languages used in science and technology</p>
40% Practical	<ul style="list-style-type: none"> - The student must use the scientific method or the design method to solve problems. Student expertise is expected to increase with each lab performed. - The student must identify, and be able to restate in her own words, the questions asked of her in lab situations. - The student should be able to write a clear, concise procedure while using scientific vocabulary. - The student should be able to carry out the procedure using correct techniques and as well as following all safety rules. - The student should be able to form conclusions and inferences from the data collected during the experimental procedure. She should also be able to identify potential sources of error which may have affected the experiment's results. - Students will be able to communicate in all forms (oral and written) using appropriate scientific vocabulary and symbols. - Students will be able to create data tables and charts accurately.
<p>Activity Types in this competency:</p> <ul style="list-style-type: none"> - All activities related to the scientific method (Labs; Design projects; Science Fair) 	
2.	<p>To make the most of your knowledge of science and technology To communicate in the languages used in science and technology</p>
60% Theory	<ul style="list-style-type: none"> - Students should be able to analyze and form opinions on scientific issues. - Students should be able to analyze a technical object. - Students should be able to apply facts and theories to new situations or to answer questions. - Students will be able to communicate in all forms (oral and written) using appropriate scientific vocabulary and symbols. - Students will be able to create data tables and charts accurately.
<p>Activity Types in this competency:</p> <ul style="list-style-type: none"> - Issue analysis (essays, orals, displays, etc...) *Science World Activities - Content Based Tests; Essay tests; case studies; etc.... - Analyses of technological objects. 	

Weighting of Terms		
Term 1	Term 2	Term 3
20%	20% (including Christmas Exam)	60% (including Final Exam)

The expectation is for 20 - 30 minutes of homework for each one hour of class time.

TUTORING: Lunch time tutorial once per cycle (Day 6 in the Junior Lab)

ADDITIONAL POINTS OF NOTE:

- 1) Homework and other important information are available in the Science & Technology folder on First Class.
- 2) Science World magazines and Brainpop Videos are used significantly and available to all students (www.brainpop.com)
- 3) Science Fair will be a large part of this year's science program and is mandatory for all students in Secondary 2 (Experimental or Design project).

Content	Topic
Introduction to Science	<ul style="list-style-type: none"> ➤ Lab safety ➤ Lab equipment ➤ Scientific Method ➤ Controls & Variables ➤ Observations
Science Fair Begins & ICT on-going work	<ul style="list-style-type: none"> ➤ Development of EXPERIMENTAL or DESIGN Science fair proposal. Deadline for proposal TBD- October. ➤ Graphing, EBSCO, website evaluation
Pollution Detectives & Global Water Sampling <i>(The Living World)</i>	
Unit 2: The Balance of the Planet <i>(The Material World)</i>	<ul style="list-style-type: none"> ➤ Mass ➤ States of matter ➤ Physical change ➤ Buoyancy (videodisc) ➤ Volume
Simple Machines, Technical drawings, systems, & Links <i>(The Technological World)</i>	<ul style="list-style-type: none"> ➤ Simple Machines ➤ Design & Engineering ➤ Motion ➤ Newton's Laws
Elements <i>(The Material World)</i>	<ul style="list-style-type: none"> ➤ Periodic Table ➤ Matter ➤ Chemical change
Science Fair	
Unit 4: Creating your own Perfume <i>(The Material World)</i>	<ul style="list-style-type: none"> ➤ Characteristics ➤ Mixtures ➤ Separation of mixtures ➤ Solutions
Unit 3: The Adventure of the Living Organism <i>(The Living World)</i>	<ul style="list-style-type: none"> ➤ Asexual & sexual reproduction ➤ Fertilization ➤ Pregnancy ➤ Reproduction in animals
Unit 1: Diversity of Ecosystem <i>(The Living World)</i>	<ul style="list-style-type: none"> ➤ Acidity/alkalinity ➤ Characteristics of living organisms ➤ Ecological niche ➤ Habitat ➤ Physical & behavioural adaptation ➤ Plant & Animal cells ➤ Species ➤ Taxonomy
FINAL EXAMS: Competency #1 Lab exam (practical) and & Competency 2 written exam (theory) will take place in June.	