Course Outline: Life Sciences 11

Teacher: Ms. McGuire
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** Note – my email is different than other teachers! **

Objective

To develop the attitudes, skills, and knowledge necessary for scientific literacy by working and communicating scientifically, practicing scientific inquiry, thinking critically and creatively, and acting with personal and social responsibly.

Course Description

For a detailed breakdown of B.C.'s new curriculum "Building Student Success" please refer to the Ministry website @ curriculum.gov.bc.ca.

Curricular Competencies

- Questioning and Predicting
- Planning and Conducting
- Processing and Analyzing data and information
- Communicating
- Applying and Innovating
- Evaluating

Big Ideas

- Characteristics of living things
- Process of evolution
- Taxonomy

Content

Characteristics of Living Things

- cells are the basic unit of life:
  - comparing cell structures
  - prokaryotic and eukaryotic
  - unicellular and multicellular
  - cell specialization
  - sexual and asexual reproduction
  - cellular respiration and photosynthesis
- viruses:
  - basic structure and function of a virus
  - lytic and lysogenic cycles
  - effects of viruses on organisms

Process of Evolution

- evolutionary change:
  - role of DNA in evolution as a hereditary material
  - five agents of evolutionary change
- development of the theory of evolution
- models of evolution
- speciation:
  - divergent evolution
  - convergent evolution
  - co-evolution
- trends in complexity
- artificial selection and genetic modifications

Taxonomy

- taxonomy principles for classifying organisms:
  - taxons
  - phylogenetic tree and cladogram
  - dichotomous key
  - First Peoples understandings of animal body plans
  - First Peoples uses of local plants
- binomial nomenclature
- unifying characteristics of the evolutionary continuum across the kingdoms:
  - three domains
  - six kingdoms

Classroom Responsibilities

Successful students…

- ☑ *Attend class daily.*
- ☑ *Arrive on time and are prepared to participate bringing the required materials.*
- ☑ *Actively participate in lessons and use class time constructively.*
- ☑ *Complete all assignments, to the best of their ability, and submit them on time.*
- ☑ *Respect a working and learning environment for both staff and students.*
- ☑ *Practice safe Lab & health/hygiene procedures to maintain personal and peer safety.*
- ☑ ***Use personal electronic devices responsibly and respectfully both in and out of the class***

*****Become familiar with our main online platform (MSteams) for daily communication, lesson information & assignment submission *****

Resource Materials

Textbook: BIOLOGY- Miller Levine

Resource Materials to be supplied by students:

Three Ring Binder, Lined Paper, Graph Paper, Dividers**,** Pencil Case, Scientific Calculator, Pencils, Eraser, Pens, Ruler (15 cm), Scissors, Felts, Pencil Crayons, Glue Stick

Attendance

Daily attendance is required. However, if you are absent, it is your responsibility to make up missed work. Should you be absent on the day of an assessment or evaluation, please have your parents/guardians notify the school of your absence and your reason (email @ argyle@sd44.ca or leave a telephone message @ 604-903-3314) ASAP. **It is your responsibility** to make up missed work. It is also nice to notify me with an MSTeams chat message. Arrangements may then be made to write the test or submit the project, or do the lab on the day of your return, usually during flex time. Patterns of absence may result in a failing grade.

Assessment and Evaluation

The work of students will be evaluated in a variety of ways:

- *Formative assessment* will be used to monitor student learning in order to modify teaching and learning strategies with the goal of improving student mastery.
- *Summative assessment* will be used to evaluate skill acquisition, student learning and mastery of specific content areas in order to summarize student development at a particular time.
- *Performance based assessment* uses a set of criteria that require students to demonstrate their knowledge and skills, including the manner in which they solve problems. Performance based assessment will be used to measure how well students can apply what they know, often to real-world situations.

Students and parents/guardians, please sign below to acknowledge that you have read and understand the scope of this course and the responsibilities associated with it.

_____	_____
(Parent/ Guardian Printed Name)	(Student Printed Name)
_____	_____
(Parent/ Guardian Signature)	(Student Signature)
_____	_____
(Parent email)	(Teacher Signature)