Science 9 Miss. Taryn Banach 2021-2022

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## **Course Overview:**

Diverse learning experiences within the Science 9 program provides students with opportunities to explore, analyze and appreciate the interrelationships among science, technology, society and the environment, and to develop understandings that will affect their personal lives, their careers and their futures.

## Materials Required:

Science Focus 9: McGraw-Hill Ryerson, 2002 (textbook provided by school) Calculator

During labs proper clothing (long pants and closed toe shoes, long hair tied back) must be worn. Protective equipment such as goggles will be provided.

### **Scope and Sequence:**

#### Unit A: Biological Diversity (~ 36 classes)

- Topic 1 Biological diversity and survival
- Topic 2 Habitat and Lifestyle
- Topic 3 Passing it on
- Topic 4 Wearing your genes
- Topic 5 When plans change
- Topic 6 The best selection
- Topic 7 The Sixth Extinction?
- Topic 8 Pains and gains

#### Unit B: Matter and Chemical Change (~37 classes)

- Topic 1 Exploring matter
- Topic 2 Changes in matter
- Topic 3 What are elements?
- Topic 4 Classifying elements
- Topic 5 The Periodic Table
- Topic 6 Chemical compounds
- Topic 7 Chemical reactions
- Topic 8 Reaction rate

#### Unit C: Environmental Chemistry (~26 classes)

Topic 1 - A hair-raising dilemma

Topic 2 - A growing concern

Topic 3 - How do you spell relief?

Topic 4 - How much is too much?

Topic 5 - Getting away from it all?

Topic 6 - N.I.M.B.Y. - There is no away in throwing

#### Unit D: Electricity (~34 classes)

Topic 1 - Electric charges

Topic 2 - Electricity within a current

Topic 3 - Resisting the movement of charge

Topic 4 - The energy connection

Topic 5 - Portable power

Topic 6 - Generators and motors

Topic 7 - Electricity in the home

#### Unit E: Space (~34 classes)

Topic 1 - For our eyes only

Topic 2 - Stronger eyes and better numbers

Topic 3 - The spectroscope: new meanings in light

Topic 4 - Bigger and smarter telescopes

Topic 5 - What channel is that

Topic 6 - Above the atmosphere and under control

Topic 7 - The solar system up close

Topic 8 - People in space

#### Provincial Achievement Test (PAT) Review (~10 classes)

#### Assessment:

The final course mark will be generated as follows:

Assignments, Projects, Labs	25%
Quizzes	20%
Unit Tests	30%
Final Exam	25%
Total	100%

## Teaching Methodologies:

There will be a variety of instructional strategies utilized in Science 9. These will include lectures, experiments, dissections, review games, student and/or teacher demonstration, student research, films and discussions.

## **Expectations of Students:**

- 1. Students are expected to show up to class on time with all necessary materials.
- 2. Students are expected to respect the teacher, other students, and the classroom.
- 3. Students are expected to participate in all class activities.
- 4. Students are expected to follow the rules and procedures set out by the teacher.
- 5. If you are absent, you are responsible for catching up on whatever work you have missed due to absences. Check what was completed on Google Classroom or with another student in the class. Hand in your assignments on the day you return to school.
- 6. Any exams or quizzes missed due to an excused absence must be made up either during PULSE or at lunchtime the day of your return to school. Please make arrangements with the teacher.
- 7. Cell phones, IPods and other electronic devices may only be used with teacher permission. During exams all electronic devices will be placed in the pocket chart and remain there until all students have completed the exam.

## <u>Plagiarism:</u>

Cheating will not be tolerated! This could include, but not be limited to, the following:

- tendering another's work as your own
- downloading information from the Internet and not citing it
- cutting and pasting from documents not your own
- paraphrasing another's writing and not citing it
- submitting work that you have already received a grade for in another course

# **Controversial Topics:**

Science 9 may cover some potentially controversial topics. All subject matter will be taught from a **scientific basis**, and any positions that are presented are not necessarily personal opinion, but rather those expressed by the scientific community. If you feel uncomfortable with any topics please come and talk to me.

# Success Plan:

Science 9 covers a lot of concepts in a short amount of time. Regular attendance is key to your academic success. If you participate during class activities, do your homework, and study for quizzes/exams you will be successful in Science 9. Extra help is available during lunch or after school; however, it is your responsibility to ask. Your success depends on YOU!!!

Keep track of your marks as they will be posted online on a regular basis. PowerSchool is used as a tool for teachers to communicate with students and parents about such things as attendance, grades, discipline, schedules, assignments, events, fees and graduation requirements.



# Have a great semester! ☺