

Science 10 Course Outline  
Mr. Romswinckel  
romswinckel\_b@surreyschools.ca

Fall Semester 2024-25  
Room C223  
mrrromswinckel.com

There are some curricular competencies that students will be expected to achieve in order to earn a passing grade for Science 10  
(Curricular Competencies listed here are explained below)

- \*Questioning and predicting
- \*Planning and conducting
- \*Applying and innovating
- \*Processing and analyzing data and information
- \*Evaluating
- \*Communicating

There are four Core Concepts for this course.

- 1) Genes are the foundation for the diversity of living things
- 2) Chemical processes require energy change as atoms are rearranged
- 3) Energy is conserved and its transformation can affect living things and the environment
- 4) The formation of the universe can be explained by the big bang theory.

### Grading Criteria

Quizzes	20%	
Mid-Terms	60%	(2 Midterms @ 30% each)
Cumulative Final Exam	20%	

### Key to Succeeding in this Course

- \*Daily Vocabulary Review
- \*Don't wait till the last minute to study
- \*Take note of the examples I use in class
- \*Tie together concepts between the units studied

### Weekly Quizzes

Every Monday you will be quizzed on the previous week's lessons and activities. The questions will be based on our current lessons or from any labs that we have completed. There won't be a quiz on the weeks where there is no school on Monday. On a quiz day, if you have an excused absence registered in MyEdBC, your next quiz will count for double the marks. There is no adjustment if you miss the last quiz of the semester.

### Absences for Mid-Terms-

This semester there will be TWO Mid-Terms this semester. If you are absent for either one of these assessments, the make-up day will be Monday, January 27, 2025 at 9:00am in Room C223. If you miss both of the Mid-Terms, you will only have from 9am to 11am on that day to write both of the make-up versions of the exams.

### **Leaving Class for the Washroom**

I strictly follow the 10 and 10 rule here at Queen Elizabeth Secondary where nobody can leave class during the first or last 10 minutes of class time. Only one person can leave at a time. Using your student number, you will be logging out on my app when you leave and logging back in when you return so that an accurate amount of time you are spending out of class can be recorded separately for each student.

### **Cell Phone Policy**

Due to the new ministry guidelines on a "bell to bell" ban on cell phone usage. Students are no longer able to use or have cellphones, headphones or earbuds out in this class. **It doesn't matter if you are using them or not, I should never see them.**

For the first offense you will serve 15 minutes of detention at 2:45 pm that day. If you don't show up, a referral will be written to your VP and the punishment is much worse. For the 2<sup>nd</sup> offense you will serve a 30 minute detention at 2:45 pm that day. Subsequent violations will include calling parents or guardians for a meeting

### **Honesty**

All work needs to be your own. Copying, cheating or plagiarizing will not be tolerated. Students who are caught performing any violation of academic integrity on an exam will:

\*You receive a score of zero till the make-up version on January 27, 2025

\*Your parents/guardians will be called in for a meeting with your VP and myself

### **Safety Guidelines Followed At All Times**

No unsafe activity will be tolerated in class. Your safety and the safety of others is my priority. During class time, your bag, backpack or other belongings need to be underneath your desk to keep the aisles clear for me or others to move through in an emergency.

### **Respectful Environment**

Students will have respect for others. Name calling, profanity or bullying of any form will not be tolerated. Everyone should feel safe in this classroom and not be afraid.

## **Core Content Explained**

### **Genes are the foundation for the diversity of living things-**

- DNA structure and function
- genes and chromosomes
- simple patterns of inheritance
- mechanisms for the diversity of life
  - mutation and its impact on evolution
  - natural and artificial selection
- applications of genetics and ethical considerations

### **Chemical processes require energy change as atoms are rearranged-**

- re-arrangement of atoms in chemical reactions
- acid-base chemistry
- law of conservation of mass
- energy change during chemical reactions
- practical applications and implications of chemical processes (First People's perspective)

### **Energy is conserved and its transformation can affect living things and the environment-**

- law of conservation of energy
- transformation of potential and kinetic energy
- local and global impacts of energy transformations from technologies
- First People's perspectives on energy
- nuclear energy and radiation
  - fission vs fusion
  - technologies, applications and implications

### **The formation of the universe can be explained by the big bang theory-**

- big bang theory (not the television show)
- components of the universe over time
- astronomical data and collection methods