

Science 20 Syllabus and Course Information

School: amiskwacy Academy

Course: Science 20 Credits: 5 Prerequisites: Science 10

Teacher: Miss West karen.west@epsb.ca

Purpose/Goals/Objectives:

Science 20 and 30 are academic courses designed for students with aspirations to continue their education at the post-secondary level. They are general courses that focus on the connections between society, technology and science. Your objective is to acquire the background skills, knowledge, and attitudes needed to be an informed and responsible citizen in a world influenced profoundly by science.

Assessment/ Evaluation/Grading Policies:

Unit exams missed will receive a placeholder mark of 0% until an alternate exam is written as arranged by the teacher.

Quizzes 25 (~4% each)
Assignments 25% (~4% each)
Learning Assessments 50% (12% each)

Unit A: Chemistry: Chemical Changes: Students will develop an understanding of concentrations of aqueous solutions, oxidation-reduction (redox) processes and the characteristics of hydrocarbons. Students will also learn how economically important industries are based upon the application of these chemical principles.

- Chapter 1: Aqueous Solutions
- Chapter 2: Redox of Metals
- Chapter 3: Organic Chemistry

3 Quizzes 2 Assignments 1 Learning Assessment

Unit C: Geology: The Changing Earth: Students will examine scientific evidence that supports the theory that the Earth's surface is changing and that these changes have dramatically impacted the climate and life forms on Earth throughout time.

- Chapter 1: The Abyss of Time
- Chapter 2: A Tropical Alberta
- Chapter 3: Changing Climates

1 Assignment 1 Learning Assessment

Unit B: Physics: Changes in Motion: Students will develop the concepts of displacement, velocity, acceleration, force, momentum and mechanical energy and will examine the relationships among them. The effects of force on motion and its technological applications, from the design of safer roads and sports equipment to the investigation of traffic accidents, will be examined.

- Chapter 1: Describing Motion
- Chapter 2: Collisions

3 Quizzes 2 Assignments 1 Learning Assessment

Unit D Biology: Changes in Living Systems: Matter cycles and energy flows through the biosphere and its component ecosystems. Students will use the concept of the ecosystem to explain energy dissipation and nutrient recycling and to quantify large-scale and long-term processes. Students will also study habitat destruction, ecological succession and changes to populations, focusing on the need to balance the interests of a growing human population with sustainable ecosystems.

- Chapter 1:
- Chapter 2: Changing Populations

1 Assignment 1 Learning Assessment

Class Expectations

1. RESPECT – You are expected to treat others, yourself, and property with respect. In turn, others will treat you with respect. Swearing, abuse of equipment, and coming to class late are signs of disrespect.
If you want respect, be the first to show it!
2. SAFETY: is everyone's right and responsibility.
3. SUCCESS: Remember that you are responsible for your own achievement:
 - Be here – Regular attendance is an important aspect of success in a high school program. If you are absent (eg illness, medical appointment, field trip), it is your responsibility to catch up on any missed work in a timely manner. Use your textbook and the course timeline. Make sure you have the contact information for a few people in the class. Know my school email.
 - Be on time
 - Use class time well. This is not a time to socialize.
 - Plan around exam dates – All students are expected to be present when an exam is scheduled. If a student is absent the day of an exam the following will occur:
 1. If the absence is legitimate [e.g. illness (confirmed by parent), medical (confirmed by doctor's note) or bereavement], the student will be given *as soon as possible* from the date of the exam to write a makeup exam. Exam sittings will be scheduled by the teacher outside of class time.
 2. If you have test anxiety, there are many things you can do to help you deal with this. Don't skip tests.
 - Behaviour – You are expected to behave in a manner that is appropriate for the classroom and lab setting. Any behaviour that disrupts my teaching or the learning of your peers will not be tolerated. This will also result in a phone call home.
 - As per school policy no food, drinks, hats, cell phones or MP3 players/iPods are permitted in class. At the teacher's discretion, googling may be allowed. Water bottles are OK.
4. Extra Help - I am available after schools most days to provide extra help with your course work. Check with me to confirm a time.