



McCreary School  
Grade 10 Science 20F  
1.0 Credit  
Semester 1 – 2020/2021  
Ms. Aune

## COURSE OUTLINE

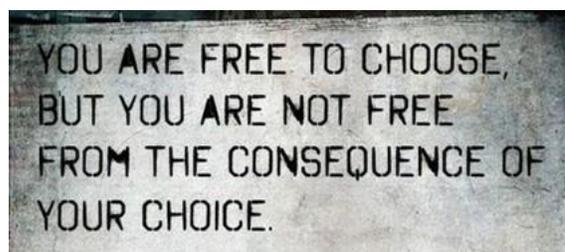
Unit & Topic
<b>Dynamics of Ecosystems</b> September 9 <sup>th</sup> - October 1 <sup>st</sup>
Review and New Terminology
Biogeochemical Cycles
Bioaccumulation
Carrying Capacity
Limiting Factors
Graphing Populations
Species Introduction / Extinction
Biodiversity and Sustainability
Test --October 1 <sup>st</sup>
<b>Chemistry in Action</b> October 5 <sup>th</sup> –November 6 <sup>th</sup>
Number of Valence Electrons
Ionic and Covalent Bonds
Naming Binary Compounds
Naming Molecular Compounds
Law of Conservation of Mass
Balance / Classify Equations
Acids and Bases
Air Pollution
Test --November 6 <sup>th</sup>
<b>In Motion</b> November 6 <sup>th</sup> –December 10 <sup>th</sup>
Velocity, Distance, Time
Force and “Natural” Motion
Newton’s 1 <sup>st</sup> Law
Newton’s 2 <sup>nd</sup> Law
Newton’s 3 <sup>rd</sup> Law
Momentum and Impulse
Conservation of Energy
Effects of Friction and Braking
Test--December 10 <sup>th</sup>
<b>Weather Dynamics</b> December 11 <sup>th</sup> -January 14 <sup>th</sup>
Hydrosphere and Atmosphere
Earth’s Radiation Budget
Heat Transfer
Climate Change
Meteorological Maps
Severe Weather
Test--January 14 <sup>th</sup>
<b>Portfolio / Exam Review</b> January 18 <sup>th</sup> -22 <sup>nd</sup>

## PURPOSE

Science 20F teaches students about the fascinating world of ecosystems, how chemicals react, the physics of objects in motion and how weather works, as well as how people can use their knowledge of ecology, chemistry, physics and meteorology to live responsibly in our world.

## EXPECTATIONS

1. Your behaviour in class must not prevent the teacher from giving the lesson OR interfere with anyone else’s opportunity to learn.
2. Arrive to class on time and prepared to work.
3. Follow all safety rules of a science lab.
4. Use class time wisely and complete/hand in all homework and assignments on time.
5. If you’re struggling talk to Ms. Aune ASAP.



## REQUIRED SUPPLIES

Students are expected to bring the following supplies to EVERY class: a 3 ring binder with loose leaf, pens, pencils, erasers, and highlighters.

## EXTRA HELP

Extra help is available if you need it. I am usually available at lunch, and before or after school.

## CONTACT INFORMATION

Teacher: Ms. Aune  
Email: [saune@trsd.ca](mailto:saune@trsd.ca) School Phone #: 835-2083

**ONCE YOU HAVE READ THROUGH THIS COURSE OUTLINE WITH YOUR CHILD PLEASE SIGN AND RETURN IT TO THE SCHOOL.**

## Course Objectives:

»Dynamics of Ecosystems (MB Curriculum)

*In this cluster, students examine the complex relationships present in ecosystems in order to further investigate issues of sustainability. The large scale cycling of elements in biogeochemical cycles and the bioaccumulation of toxins in food chains are studied. Population dynamics are examined in the context of the carrying capacity and limiting factors of ecosystems. The concepts and implications of species biodiversity are explored as well. With the knowledge they have gained, students investigate how human activities affect an ecosystem and use the decision-making model to propose a course of action to enhance its sustainability.*

»Chemistry in Action (MB Curriculum)

*This cluster provides students with the opportunity to examine the interactions among elements as they form compounds through chemical reactions. Students become familiar with the formulas and naming of binary compounds and investigate the Law of Conservation of Mass. The recognition that mass is conserved in chemical reactions allows students to balance equations with both words and symbols, and classify them by type. The principles of acid-base chemistry are studied and extended to large-scale environmental interactions. Students investigate the use of chemistry in biological, industrial, and domestic settings, recognizing that chemical use is pervasive in modern society.*

»In Motion (MB Curriculum)

*In order to develop an understanding of the physics of motion, the outcomes of this cluster are examined within the context of the automobile. The relationships among displacement, velocity, acceleration, and time are analyzed in conceptual, numerical, graphical, and symbolic modes. Students investigate the qualitative aspects of inertia, force, impulse, and momentum as they related to automobile safety. The conservation of energy in car collisions and braking distance is explored. Using the knowledge they have gained, students use the decision-making process to address an STSE issue related to safe driving conditions.*

»Weather Dynamics (MB Curriculum)

*This cluster develops an understanding of relationships that control weather and climate. An examination of the global energy budget of the Earth through water and heat transfer provides the basis for discussion of severe weather phenomena. Students gather and analyze meteorological data related to a severe weather event, and explore the social, economic, and environmental impact of the event. Evidence that climate change occurs due to natural events and human activities is investigated and evaluated. Students apply their understanding of weather and climate in a discussion of the potential consequences of climate change.*

## Academic Assessment:

In this course you will be assessed in a variety of ways, including: homework checks, assignments, labs and tests. All students will be required to write the final exam at the end of January.

Course work will be divided into two categories called Major and Minor.

Major (50%): quizzes and tests

Minor (20%): homework checks, assignments, and unit reviews

Course Work	70%
Final Exam	30%

You won't have homework every night, but when it is assigned it is expected to be completed on time. Homework checks will be done periodically at the start of a class to assess whether or not the student has completed each of the questions in the assignment. To get full marks, all questions must be attempted with appropriate work shown. Assignments and reviews are to be completed on time and to the best of the student's ability. Late or missing assignments will be penalized as outlined in the school student handbook.

Assessments will be marked with a percentage, which will sometimes be determined by rubrics and checklists that the students will be given with their assessment. Following a **test**, students will have one week to correct any mistakes on the test and resubmit the test. Students are able to earn back *half* of the corrected marks on that test. Late assessments and academic dishonesty will be dealt with according to the policy outlined in the school handbook.

## Attendance Policy (as per McCreary School Handbook):

*Students are to report to their classroom by 8:50 am and 1:00 pm. Daily class attendance is kept. Parents are asked to call the school by 9:00 am if your child will be absent. If a student is absent and we have not heard from home, the school will call to confirm child's whereabouts. Chronic absenteeism will be referred to the school division truancy officer.*

- If you are absent, YOU are responsible for finding out what you missed and making up all missed work.
- If you have an excused absence for the day of a test please make arrangements to write it the day you return to school.
- If you *skip* a test or quiz you will receive a zero.

## Cell phones and Technology:

Due to the pandemic situation, students will not have access to lockers at this time. Thus, students are to have their personal devices off during class time (unless directly specified by teacher) and will have access to a laptop for classwork. In situations where students are quietly working AFTER all instruction/lessons have been completed, students may be given the option to listen to music with their own earphones. This privilege will be revoked immediately if there is any distraction to classmates or inappropriate usage (ie texting, social media).

## Behavior Assessment:

Student behaviour will be evaluated on an ongoing basis using the criteria listed below.

<b>PERSONAL MANAGEMENT SKILLS</b>
Organizes material
Uses class time productively
Works independently
Completes all work on time
Persists when faced with challenges
Seeks help when needed
Demonstrates a strong work ethic
Shows patience
Demonstrates on-task behaviour
Sets personal management goals
<b>ACTIVE PARTICIPATION IN LEARNING</b>
Shows interest; asks questions
Takes initiative
Self-assesses work quality based on criteria
Uses feedback to improve learning
Uses criteria to provide feedback
Uses a variety of media for communication
Investigates questions, hypothesizes, analyzes
<b>SOCIAL RESPONSIBILITY</b>
Works and interacts well with others
Is welcoming and positive
Shares resources and equipment with others
Respects school values
Respects and follows classroom routines
Takes an equitable share in group work
Is courteous
Respects the need for safety
Sets personal management goals

## Late Assignment Policy – Grades 7-12

McCreary School's policy for late assignments was developed in accordance with the Provincial Assessment Policy.

The guidelines for late assignments are as follows:

1. Teachers will set and communicate reasonable timelines for assignments.
2. Teachers will share timelines and reminders with students through various formats (ex. course outline, email, post in classroom, etc.).
3. Teachers will assist students to meet timelines – monitor progress, check-ins.
4. Students who struggle will require additional support from the teacher.
5. Extensions will be granted at the teacher's discretion, for valid and legitimate reasons only (ex. illness).
6. Teachers will communicate with parents or set up parent/teacher/student conferences to discuss late assignments.
7. Teachers will make an arrangement with student to complete work.
8. Teachers will create alternative assignments for diverse learning needs.

Where the above guidelines have been followed and assignments are not handed in by the given due date, a deduction in marks will apply.

Upon teacher discretion a maximum of 5% may be deducted for every day the assignment is not turned in. If the assignment is not turned in after two weeks or at the start of a new unit, the assignment will receive a mark of zero.