COURSE OUTLINE-Mrs. Staniland
Grade 10 Science (20F)

Learning, respect, responsibility, and safety are the guiding principles at the SVRSS. If any of these four values are compromised the issue will be addressed. In room 212, students are expected to put forth an honest **effort, attend** class on time, arrive **with materials** daily and display a **respective, cooperative, responsible attitude and behaviour** towards other class members, EA's, substitute teachers and myself!

Class Routines:

Please be on time to class and you should have pens, binders, and your textbook, out and ready when class begins.
When asking to leave the room for any reason, any electronic device must be left in the room in a safe location.
You are to remain seated until the end of class and NOT congregate at the doors or the hallway until you are dismissed.
The bell does not dismiss you as instructions and/or lab clean up needs to be completed before leaving.
A discussion will be had as to which foods and\or beverages will be allowed at the tables in room 212.

Digital Citizenship:

Use of personal devices is **not allowed *during direct class instruction.*** Devices or distractions will be out of sight while class is in session. Before class begins, you are instructed to place your device in the safe location at the front of the room. There are also locations on the outside cupboards that are available to charge devices during class time. The use of technology is encouraged and can be a very useful tool. To be clear, devices are not to be used during class time for any personal reasons. When required, students may be given the opportunity to use their device for research purposes.

"All members of the Swan Valley School Division community are expected to use digital technology in a safe, respectful, responsible, and ethical manner. SVSD devices are to be used in the classroom for learning.
*****Absolutely no electronic devices are permitted during quizzes, tests, or exams. Students who are caught with electronic devices will receive an automatic zero without debate*****

Evaluation:

Rich Performance Tasks: Assignments & Quizzes	**25%**
Demonstrations: Classroom and Lab Work	**15%**
Projects (mandatory completion)	**5%**
Tests	**35%**
Final Exam	**20%**

FORMATIVE ASSESSMENT is work that is monitored daily and is important for monitoring learning but not count towards a final grade. It is an indicator of curriculum outcome comprehension that students have obtained from completing work during class time or at home, observations, and conversations with students.
SUMMATIVE ASSESSMENT includes assignments, quizzes, tests (accumulated assessments) and the exam (final assessment). All summative assessments count towards a student's final grade. Students who do not complete formative work, may find summative work difficult.

Reasonable timelines will be set for all work. All efforts to complete assignments must be made. Students who know that they will not complete the work in the timeline set must communicate that with the teacher and determine how/when the work will get completed. It will be at the discretion of the teacher to accept late work.

> *The Provincial Assessment Policy K to Grade 12 (2011) states "…students are ultimately responsible for the timely completion of their assignments and for knowing that there are consequences for failure to adhere to the parameters."*

Assessment and Evaluation:

PowerSchool's app can be a valuable tool as you track your assignments and progress in class. Please be sure to use the app to track your progress and marks.
PowerSchool allows for a late symbol, a missing symbol and a checkmark to show completion in place of formal marking.
Included in your report card is a record of the following learning behaviors: Personal management skills, active participation and social responsibility. These essential skills are important factors that contribute to success in the classroom and to the workplace. They are not used in determining grades; however, these behaviors are often indicators of personal motivation and engagement.

Attendance:

Attendance will be taken within the first 10 minutes of class. Students will be marked truant if they are not in class when attendance is taken. At the time that they enter class they will need to notify the teacher so that the truant designation can be changed to reflect lateness. If a student knows ahead of time that they will be away, please discuss and ask for any assignments that will be missed before leaving. This will help you to stay with the rest of the class and not get behind.

Test Preparation:

Students will be given a minimum of 3 school days' notice for tests. Quizzes can be given at random. All questions for testing will come from materials covered in class and from handouts given.

Exam:

There will be a final exam for all Grade 10 students.

Credit Acquisition:

A final overall mark of 50% in the course must be earned to receive a credit in the course. There are mandatory projects/assignments that must also be completed before the credit is granted. Be sure to complete those in a timely manner. I encourage all students to strive for excellence to avoid any possibility of credit loss!

Course Description:

This course is set up for students to study a variety of topics related to science for preparation in future science courses in specialized science areas in Grade 11 & 12. Through scientific inquiry, technological problem-solving and decision making, students can discover the significance of science in their lives.

Essential Learning Outcomes:

i. Chemical Processes

Students will use the Periodic Table to determine the following:

- ☑ Bonding, Lewis Dot Diagrams, and combining capacities
- ☑ Naming of compounds and creating formulas

Students will investigate chemical reactions (synthesis, decomposition, single/double displacements, combustion)

- ☑ Law of Conservation of Mass, balancing equations

Students will classify and characterize acids and bases including:

- ☑ pH scale, industry use, neutralization, and environmental impact

ii. Motion

Students will outline historical developments in force and motion including:

- ☑ Newton's Laws, Aristotle, Galileo

Students will investigate how force relates to motion including:

- ☑ Inertia, friction and momentum (weather, surface, size of vehicle)
- ☑ Potential energy converted into kinetic, sound and thermal energy (car collisions)
- ☑ Braking distances (displacements and velocities)

iii. Sustaining Ecosystems

Students will investigate and explain ecosystems including:

- ☑ Carrying capacities (biodiversity), limiting factors
- ☑ Populations (open/closed population)
- ☑ Species Interactions

Students will understand and interpret nutrient cycles including:

- ☑ Carbon, nitrogen, and oxygen
- ☑ Biogeochemical cycles
- ☑ Bioaccumulation

Students will investigate human impact and shifting perspectives on ecosystems including:

- ☑ Ecosystem services
- ☑ Connectivity and disruptions
- ☑ Alien species and invasive species

iv. Weather Dynamics

Students will explore and illustrate weather patterns and factors including:

- ☑ Hydrosphere, atmosphere,
- ☑ Transfer of energy within the environment (wind/ocean currents)
- ☑ Severe weather phenomenon

Students will investigate and evaluate human impact on climate including:

- ☑ climate change (global warming)
- ☑ use of technology to gather and interpret data