

COURSE OUTLINE

SCIENCE Grade 9

Mr. Kujanpaa

Contact Information: mkujanpaa@svsd.ca, 204-734-4511 x 2217

Description:

This course is set up to address wonders and curiosities about the nature of science. Through scientific inquiry, technological problem-solving and decision making, students can discover the significance of science in their lives.

Essential Learning Outcomes:

i. Reproduction

Illustrate and explain the processes involved in human development.

- ☒ mitosis/meiosis
- ☒ cell cycle
- ☒ male and female reproductive systems (anatomy, physiology, embryology)

Describe the role of genetics.

- ☒ DNA
- ☒ Genetic mutations
- ☒ Dominant/recessive genes
- ☒ Inheritance of sex-linked traits

ii. Chemistry

Analyze and use the Periodic Table and its components

- ☒ Organization (periods, groups, families)
- ☒ Bohr models (atomic structure, mass, number, valence number, etc.)
- ☒ Formation of compounds (combining capacities, hook & ball)

Investigate physical and chemical properties of matter

- ☒ Identify the different types of physical and chemical changes
- ☒ Indicators of physical and chemical change

iii. Electricity

Identify electrical particles and demonstrate how electrostatics works

- ☒ Charges, conduction, induction, insulators, and grounding

Demonstrate and explain the nature of current electricity

- ☒ Series and parallel circuits (voltage, resistance, current, voltmeter, ammeter)

Recognize daily consumption and efficiencies of electricity in everyday life

iv. Space

Observe and locate visible and celestial objects

- ☒ Planets, moons, stars, comets, and asteroids, etc.

Investigate ways in which Canada contributes to space research

- ☒ Technological advancements (Canadian Space Station and Canadarm)
- ☒ Effects of space travel (health and body)

Evaluation:

FORMATIVE ASSESSMENT is everyday work that is monitored, but does not count towards a final grade. It is an indicator of curriculum outcome comprehension that students have from completing work during class time or for homework. Observations, conversations with students and daily work will be used in this form of assessment.

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.

Rich Performance Tasks: Assignments, Quizzes, and Labs	45%
Tests and Astronomy Project	40%
Final Exam	15%

Reasonable timelines will be set for all summative 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.

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."

If a test is missed with a valid reason, it is the **STUDENT's** responsibility to make sure to write at the earliest opportunity. **FAILURE TO PROVIDE A VALID REASON WITH ACCOMPANYING NOTE FOR MISSING A TEST WILL RESULT IN 0% FOR THAT TEST! – MEDICALS/FARMING/FAMILY OBLIGATIONS ARE EXAMPLES OF VALID REASONS – SKIPPING/HAIRCUTS/NAILS/SHOPPING etc. ARE NOT VALID REASONS!**

Attendance:

Attendance is checked daily. If a student knows ahead of time that they will be away, get any assignments that will be missed before leaving. This will help 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 are No exemptions. Everyone will write the final exam during the exam schedule. 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!

Materials Needed:

Pencils, Notebook, binder, and occasionally coloured pencils.

Digital Citizenship:

Use of personal devices is not allowed *during class time*. As mandated by the province, *Grade 9 to 12 students: banned from cell phone use during class time on campus and off campus but are permitted to responsible use of cell phones during break times and lunch.* I have provided you with a safe place for your device at the front of the room. There are also locations available to charge devices during class time.

“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. Students are encouraged to use these devices as supported by the classroom teacher for positive educational benefits and guided classroom instruction.

*****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*****

Expectations:

Students are expected to put forth an **honest effort**, attend class **on time, daily** with materials and **display a respectful, cooperative, responsible attitude and behaviour towards other class members, EA's and substitute teachers.**