

2023 Science 9 Course Outline

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Course Website: classroom.google.com • Text: Science Focus 9

Course Overview and Outcomes

GRADE 9 COURSE OUTLINE

Students in Grade 9 Science work safely with chemicals to explain, interpret and extend their understanding of chemical theory. They also design, test and evaluate electrical devices that transfer and transform energy, and they explore the role of genes and DNA in the diversity of life. Students study space exploration and how science and technology are related. The order of these units may be different

Science 9 will be presented in 5 units;

- **Biodiversity** - (approximately 3 weeks) 17% of course grade.
- Students study examples of diversity within and among species. They will examine the roles that reproduction and genetics play in establishing or limiting biodiversity, identify the significance of genetic diversity in the survival of a species, and look at ways that Humans can influence diversity for either the benefit or detriment of a species.
- **Matter and Chemical Change** - (approximately 5 weeks) Worth 17% of course grade.
 - Students investigate Chemical and Physical properties of matter, study the Periodic Table of Elements, examine types of chemical reactions, and practice naming chemical compounds.
- **Environmental Chemistry** - (approximately 3 weeks) 14% of course grade.
 - Students investigate the role of substances in the environment and their effects on living things.
- **Electrical Principles** - (approximately 3 weeks) 17% of course grade.
 - Students examine electrical devices, analyze how they convert types of energy, practice calculating energy efficiency and study the environmental impacts of generating and using electricity.
- **Space Exploration** - (approximately 2 weeks) 17% of course grade.
 - Students examine the roles that technology plays in the exploration of space, and explore other ways that Humans can benefit from this technology.

Scientific Skills represent the remaining 25% of the outcomes grade.

The Provincial Achievement Test will be written at the end of the semester and will be worth 10% of the course grade.

PERSONAL DEVICES FOR LEARNING:

WH Croxford is a 1-to-1 school. Students should bring a personal device that will support working and learning in this environment. A laptop or tablet are considered appropriate learning technologies. **Cell phones are NOT appropriate learning devices.**

Devices should be charged, updated, and ready to use at the start of each day.

Evaluation

Science 9 will use Outcomes Based Assessment this year. Assessment of each outcome will be based on homework, class assignments, projects, quizzes and unit exams. The final mark will be calculated as 85% from the outcomes and 15% from the **Provincial Achievement Test**. Each outcome is assessed numerous times and the three most recent assessments will

be used in reporting. Evidence of the student meeting each outcome will be assessed appropriately for each individual outcome. For example, an outcome relating to the history of the atomic model will be assessed in a project, while an outcome involving naming chemical compounds will be assessed through assignments and quizzes. Student understanding of each individual outcome will be assessed on the following scale:

Mastering	Advancing	Progressing	Emerging	Beginning	Limited	Not Met	Insufficient Evidence
Can apply the learning to complex tasks independently.	Can apply learning to increasingly difficult tasks.	Can apply the learning to moderately challenging tasks with some support.	Can apply the learning to basic tasks with support.	Can apply the learning to simple tasks with direction.	Can not yet apply learning to simple tasks. Extensive support required.	Not enough evidence to show achievement of outcome.	No evidence shown for the outcome.
90-100%	80-89%	70-79%	60-69%	50-59%	40-49%	25%	0%

If a student is not satisfied with their achievement on the scale, they will have the opportunity to be assessed again if they can present evidence that they have attempted to improve their understanding of that outcome. What qualifies as sufficient evidence will be determined by the teacher. Examples of sufficient evidence may include the completion of previously incomplete assignment, a conversation with teacher about outcome, amendments of errors in previous work and/or demonstration of incorporated feedback. If sufficient evidence is not presented, students will not be permitted to have the outcome reassessed. Scheduled class activities and assessments will take priority over outcome reassessment.

Required Materials - to bring to EVERY class

- pens, pencils, and erasers
- physical and access to online materials (Moodle/PS/etc)
- Personally Owned Device (computer/tablet) **with a charger!**
- scientific calculator
- binder for handouts, notes, and practical exercises (organizational skills!)
- headphones (for watching videos, etc)
- some textbooks can be signed out at the office if students would like their own copy, but a digital version may be available online.

Course Expectations

Student Expectations

- All students are to be mature and respectful of each other, the teacher, classrooms and the lab.
- Students are expected to maintain a clean and tidy classroom and lab station.
- Take responsibility for your own learning! Please ask questions and seek extra help if you do not understand. I am here to help you succeed! If I don't know you need help, I can't help you.
- When you're in class, be in class. Focus on the subject and learn what you can in the time we have.
- Be accountable for your own actions; mistakes happen and we can all learn from them! Please don't hide mistakes or poor choices. We will work through them and you will have more respect for yourself and from me.

Attendance: ALL classes are important! Whether we are doing a lesson, activity, project, quiz, test, or review, every missed class is a missed opportunity to learn and will result in students catching up on their own time. Please tell me in advance of an upcoming absence whenever possible and arrange a time to meet prior to this absence in order to stay on top of material. With the exception of an illness documented by the office, students who miss class and do not inform

me ahead of time will be expected to catch up on their own. Arriving late for class is disrespectful to others and detrimental to your own learning.

All work done in the course is both important and relevant, failure to complete ALL assignments may result in the student not obtaining and demonstrating Learning Outcomes as outlined by Alberta Education thereby potentially receiving an indicator of “INS” (Or Insufficient Evidence) as their overall achievement of learning outcomes.

Online Course Access: It is expected that all students are aware of due dates, test dates, and daily assigned work. To facilitate this, my teacher page on the W.H. Croxford website as well as the Google Classroom (classroom.google.com) will have all of this information shown on a calendar, digital and/or physical. Students should access the Google Classroom, School calendar, PowerSchool and school Gmail **EVERY DAY**.

Use of Class Time: Students are expected to be ready to work when class begins, to use all class time effectively, and to complete any unfinished work on their own time during focus or at home. All assigned work is relevant and important, and practice is needed to become proficient. All assignments must be completed.

Extra Help/Connect: Any student who would like individual assistance should see me to book a time to come for help before or after school. Individual assistance will be provided to any student who shows a good work ethic and who uses class time effectively. They may also use the science teacher in their Connect group as a resource.

Homework: Any work not completed in class must be done outside of class time. Students are required to complete all assigned work. Work should be submitted on the due date. Late submissions may not be accepted after they have been marked and returned to students. An alternative assignment may be given to make up the missing grade or 0.

Missing Quizzes and Tests: Students must write all quizzes and tests. Students who miss a quiz or test will receive a mark of “INS” (Or Insufficient Evidence) for those learner outcomes, unless I have been notified in advance or the absence is excused through the office. When necessary, quizzes/tests can be made up on a case-by-case basis.

Technology Guidelines:

- Phones should never make noise – place them in silent mode in class. Phones should be kept in lockers, backpacks or pockets.
- When anyone is presenting to the class (teaching, discussions, giving instructions, etc.), computers should be away or closed.
- Headphones are ok to listen to music during “work times” (**ask if you’re not sure**) but never when anyone is speaking to the class.
- When you have instructions to use a certain device, application, or program, they should be followed. At that time, devices should not be used for any other purpose.
- If you are going to watch a video, you must use headphones.
- Use maturity and common sense when making decisions about the use of a tech device. The line between a productive use and a distracting use is pretty clear.
- Pictures and videos are NOT permitted to be taken during class without the express permission of all those in the video/picture AND the teacher due to issues of confidentiality and privacy. Students taking videos/pictures may be asked to erase the video and have it confirmed by the teacher and/or have their device temporarily taken away.

Late/Missing assignments

Assignments must be submitted on or before their due date. Late assignments will show as a zero or INS in powerschool.

It is the students’ responsibility to complete work on time.

Once an assignment has been returned to the class, a late submission may be recorded as a checkmark in powerschool. Should the assignment still be outstanding 3 school days after the due date, or after the assignment has been returned to the rest of the class (whichever comes first), the following steps may occur:

- Students **MUST** meet with the teacher to create a plan for completing the outstanding work over a mutually agreed upon time frame.

- Students may--at the teacher's discretion--discuss the option of having the opportunity to re-do assignments or parts thereof in order to show understanding of the material.
- Students may complete an alternate assignment either of the teacher's design or the student's (with teacher approval). These assignments may be used as "re-do's" or as a completion mark, depending on the task/teacher discretion. It may be possible to replace a completion mark with an alternate or replacement assignment at a later date, dependent on the circumstances.
- **The timeline for the return/grading of late work and replacements do NOT take precedence over more recent assignments--they will be addressed at the earliest convenience of the teacher.**

Should these options prove unsuccessful:

- The student, teacher, and parent/guardian of the student will arrange a meeting to discuss a strategy for completing the outstanding assignment(s).
- Administration may be brought in to help discuss alternate arrangements in terms of the student's timetable/schedule in order to help the student succeed.

Science Reassessment Policy

A reassessment is designed to be a way for a student to show improved understanding of one or more outcomes. If a student has already demonstrated Mastery or Advancing in an outcome a discussion will need to be had about the significance of reassessment.

- Projects/Labs may be redone with a different set of related parameters which **MUST** be discussed and agreed upon with the teacher.
- Assignments may be redone but **MUST** be discussed and agreed upon with the teacher.
 - The student must create a plan with the teacher to relearn the associated prior to reassessment.
 - Maximum of 1 reassessment per outcome and must be completed **BEFORE** the unit assessment.
 - Upon teacher discretion the reassessment may come in the form of a future assessment including quizzes or tests
- Unit Tests may be reassessed but **MUST** be discussed and agreed upon with the teacher and a significant relearning process must take place to ensure greater success.
 - Before consideration, if it was absence related, the absence must be excused.
 - A relearning plan is made with the teacher and when complete a reassessment will be scheduled.

Appeals: Lines of communications to appeal are as follows:

- 1) Student/teacher
- 2) Student/parent/teacher
- 3) Student/parent/teacher/learning lead

Plagiarism

Plagiarism of any kind will not be tolerated. If you are unsure if you are committing plagiarism, see your teacher! Incidents of plagiarism will be dealt with by the teacher, learning leads and administration (if needed). Breach of academic integrity can result in a grade of zero. This includes allowing others to plagiarize your work.

If you have any questions or concerns about this class, please don't hesitate to contact me!

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