



Course Outline

Welcome to Science 8

I am looking delighted to be working with OPA students and partnering with parents/guardians this year. If you have any questions at any point in the year regarding this course or your student, please do not hesitate to contact me, email is usually the best and quickest way and a telephone conference or in-person meeting can be set up from there.

Mrs Richards

Email: srichards@hrce.ca

Google Classroom: [wg7thnr](#)

Themes of study

Learning will be enhanced through an inquiry-based approach. Inquiry-based learning requires learners to meaningfully engage in the experience/activity while reflecting upon the learning and the competencies and skills they are developing. By delivering the curriculum through an integrated approach, higher level thinking and active participation are encouraged. This approach supports learners in a deeper understanding of content and offers expanded opportunities for achievement of outcomes in a meaningful way. Learners will be exploring the following themes over the course of the year;

- **Healthy Cells, Healthy Systems** - Learners explore concepts related to keeping their bodies healthy. They will learn about cell structures and functions in relation to various medical disorders. Learners will employ case study methodologies.
- **Climate Change** - Learners will explore concepts related to heat and the kinetic molecular theory in relation to climate change and the greenhouse effect. They will examine the role of humans in climate change as well as potential solutions for adaptation and mitigation.
- **Hydraulics and Pneumatics** - Learners will explore concepts related to the properties of fluids and fluid dynamics as they are applied in hydraulic and pneumatic systems. Learners will explore mechanical advantage provided by these systems and they will use the design process to create a hydraulic or pneumatic system to solve a problem.

Learners in grade 8 will have opportunities to design scientific inquiries, evaluate evidence, use evidence for argumentation and use technology to solve problems. They will explore fundamental concepts of the Nature of Science such as:

- Scientific Reasoning
- Patterns
- Cause and Effect
- Systems and Models
- Energy and Matter
- Structure and Function
- Change and Stability
- Stewardship and Sustainability
- Similarity and Diversity

Forms of assessment

Multiple assessment and evaluation techniques are used to meet the learning styles of each student and demonstrate the outcomes for the course. These strategies can include but are not limited to:

- ✓ Labs and investigations
- ✓ Test and quizzes
- ✓ In class assignment



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- ✓ Presentations
- ✓ Self/peer assessments
- ✓ Observation
- ✓ Conferencing
- ✓ Project based work

These evaluations will be based on the student's ability to demonstrate development of the core skills in relation to the curriculum.

Classroom expectations

Schools will support and promote positive student behaviour and the following behaviour are expected of students.

- ✓ **RESPECT:** Students must show respect for the rights, property and safety of themselves and others, demonstrating socially appropriate behaviour.
- ✓ **PREPAREDNESS:** Students must come to class with the necessary materials (pencil, ruler, exercise book/paper), please refer to student equipment list.
- ✓ **DURING CLASS:** Participate in the lesson activities, share ideas, respect the ideas of others, attempt the classwork assigned, ask for help when needed.
- ✓ **DEADLINES:** Students will be accountable for meeting deadlines for assignments. Extended due dates may be negotiated with the teacher **PRIOR** to the due date.
- ✓ **ATTENDANCE:** The key to success is regular attendance and being on time for all lessons. Students are responsible to catch up on any missed work.
- ✓ **CELL PHONES:** Cell phones are to be kept in lockers provided during class time and may not be brought to lesson unless there are exceptional circumstances and with the prior agreement of the teacher/admin/school.
- ✓ **PLAGIARISM:** Students are expected to produce original work. Using another person's ideas or words/work is plagiarism.

SCHOOL CODE OF CONDUCT policy can be found on our school website or at:

https://opa.hrce.ca/sites/default/files/websites/opa.hrce.ca/basic-page/2020/10/provincial_school_code_of_conduct.pdf

Communication tools

Powerschool will be updated each month. All assessment marks will be entered and report cards will be available each term.

Extra Help

I am available for extra help as required by students. Help will be available during lunch times by prior arrangement with the student(s). Please contact me if you have concerns.

Thank you

Mrs Richards