



Dartmouth High School  
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## Contact

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  - ✓ **Course:** Science 10
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- Parents and students please refer to the HRCE Assessment, Evaluation, and Communication of Student Learning Policy accessible at <http://www.hrce.ca/>
- Term Mark:** 80%      **Exam:** 20%

## Course Introduction

Science 10 is an introductory course that aims to expose students to different subject areas related to science courses that they will pick in the upcoming years. The topics covered in this course are an extension of the Science curriculum that students have received to this point.

## Evaluation

*When determining a students' final grade:*

- ✓ *No single assessment tool (i.e. presentations, labs, demonstrations, portfolios, debates, written tests/quizzes) will account for more than half of the value of each Gradebook category*
- ✓ *Learning trends over time will be considered, more recent student work and the teacher's professional judgment*
- ✓ *Students will participate in a final cumulative assessment opportunity that allows them to demonstrate an appropriate range of the learning outcomes and process skills involved in the course. This final assessment will be worth no more than 20%.*

## Students in Science 10 will explore the following units and topics:

### **Unit 1 – Chemical Reactions (20%)**

- WHMIS and lab safety
- Naming Ionic and Molecular Compounds (IUPAC nomenclature)
- Balancing chemical equations
- Conservation of mass in chemical reactions
- Acids and Bases-classifying and naming
- Neutralization Reactions

### **Unit 2 – Weather Dynamics (20%)**

- Methods of Heat and Energy Transfer (Conduction, Convection, and Radiation)
- Water's' Role in our environment and its protection
- Layers of the Atmosphere
- Air Masses and Fronts
- Water Cycle and Cloud Formation
- The Reasons for the Seasons
- Weather forecasting and Instruments
- Canadian contributions to weather technology

### **Unit 3 – Sustainability of Ecosystems (20%)**

- Scientific method
- Sustainability of an Ecosystem
- Trophic levels, bioaccumulation, consumer levels, biotic and abiotic factors
- Short term stress and long term change)
- population dynamics
- Why different geographical areas have similar ecosystems
- Resource management and sustainability

### **Unit 4 – Motion (20%)**

- Vector and scalar quantities (distance, displacement, speed, velocity, acceleration)
- Instantaneous velocity vs. average velocity
- Calculating displacement, velocity and time
- Reading position-time graphs
- Differentiating between uniform motion and acceleration

**Assessment Practice**

*Students will be provided with multiple opportunities to demonstrate their progress toward achievement of outcomes.*

- ✓ Assessment **for** Learning/Formative Assessment is the ongoing process of gathering and interpreting evidence about student learning for the purpose of determining where students are in their learning, where they need to go, and how best to get there; instructional strategy that takes place while the student is still learning and served to promote learning
- ✓ Assessment **of** Learning/Summative Assessment is the process of analyzing, reflecting upon, and summarizing assessment information and making a judgment and/or decision based upon the information gathered.
- ✓ Assessment will take many forms, and will include observations, conversations, and products.
- ✓ Assessment Tools include, but are not limited to homework probes, quizzes, in-class assignments, group work, in class discussions, tests, projects, and the final exam.

**Creating Opportunities for Success (reference school code of conduct)**

- ✓ Students are expected to attend class regularly, be punctual, be prepared with appropriate materials, and homework completed.
- ✓ Students are expected to take an active part in their own learning, and follow the DHS school code of conduct (as outlined in the student handbook).
- ✓ Students are expected to demonstrate responsible use of technology.
- ✓ Students are expected to make positive contributions to the learning environment.

**Procedural Expectations**

*Students are responsible for:*

- ✓ *Seeking assistance with assignments when required;*
  - ✓ *Requesting an extension for assignments in a timely manner when required;*
  - ✓ *Completing assignments by specified due dates so that teachers can provide timely feedback;*
  - ✓ *Responding to feedback provided during the learning process.*
  - ✓ *In the event that a due date for an assignment is missed, it will be at the discretion of the teacher and principal to extend the deadline.*
  - ✓ *Students who do not adhere to the extended deadline will have missed that opportunity to demonstrate achievement towards the outcomes addressed in that assignment.*
- ✓ When an assessment is missed due to an absence, students/ parents are asked to communicate with the teacher to arrange for the assessment to be completed before the assessment occurs if at all possible. Unless otherwise arranged, students will be expected to write the missed assessment upon return to class.

**Communication Tools**

*Dartmouth High School will use a variety of methods to communicate student achievement throughout the school year.*

- ✓ Parents and students are encouraged to monitor progress (as well as lates and absences) using the PowerSchool portal.
- ✓ Assessments may be coded as collected, late, missing, or not included in final grade. There may also be comments listed, such as areas of improvement or dates for negotiated extensions.
- ✓ When assessments start to be categorized in a new strand, these assessments are initially weighed heavily and may cause significant change in a student’s overall grade. This weighting will become more balanced as assessments continue to be included in the new strand.
- ✓ While DHS has a number of scheduled opportunities for communication between home and school (Curriculum Night, Parent-Teacher Interviews, Mid Term Reports, Final Report Cards), parents and students are encouraged to contact the teacher any time during the semester to discuss progress.

**Accessing Help**

- ✓ Extra-help is available upon request. The best learning opportunities occur during class time so being in class is an essential part of this course. That being said, if you are struggling with a concept please come and see me as soon as you are encountering the issue and we will work it out ☺.

**Equipment Needs**

- ✓ Textbook: Science 10 (Chenlière/McGraw-Hill)
- ✓ Students will need a binder with loose-leaf to use when taking class notes, and completing practice problems. A duotang will also be required for lab activities.
- ✓ Other materials for the course include a scientific calculator, pencil, eraser, pen, pencil crayons, highlighter, ruler, and graph paper.

If you have any questions about the communication plan, please contact me at the contact information listed above.