



# Archbishop MacDonald Catholic High School

**Course** Science 10

**Year** 2025-2026

**Term** Semester 2

**Teacher(s)** Mr. Steven Como [Steven.Como@ecsd.net](mailto:Steven.Como@ecsd.net)  
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**Resources** *Science 10*, Sandner et al., Addison Welsey, 2004

Additional resources as provided by instructor and/or posted on google classroom

**Program of Studies** [Education Alberta Science 10 Program of Studies](#)

**Overview** This course consists of the following four units of study:

- A. Energy and Matter in Chemical Change**  
*WHIMIS and safety, atomic models, IUPAC nomenclature, ionic and molecular compounds, acids and bases, chemical change, types of reactions, balancing equations, conservation of mass, mole concept*
- B. Energy Flow in Technological Systems**  
*One-dimensional motion, forces, vectors and scalars, work, energy, energy conversions, efficiency*
- C. Cycling of Matter in Living Systems**  
*Microscopy and the emergence of cell theory, cell structures and functions,*



*transport of matter, surface area to volume ratio, cell specialization in plants, mechanisms of transport, gas exchange, and environmental response*

#### **D. Energy Flow in Global System**

*Solar energy and climate, climate zones, transfer of thermal energy, hydrologic cycle & phase change, biomes, human activity, climate change*

#### **IB Philosophy**

MAC's courses use the IB philosophy to encourage the holistic development of all students. The Learner Profile and Approaches to Teaching and Learning are used at all levels so that students develop a better understanding of curriculum objectives. This course will focus on the Learner Profile for THINKERS because we use critical and creative thinking skills to act on complex problems. Our Approaches to Learning skill will be THINKING because we emphasize skills such as reflection and critical thinking.

#### **Assessment**

A cumulative marking system based on category weighting will be used to determine marks. Not all summative assessments within a category are weighted equally

The categories are as follows:

- Unit A Chemistry – 20%
- Unit B Physics – 20%
- Unit C Biology – 20%
- Unit D Global Systems – 20%
- Final Exam – 20%

The code NHI may be used to represent coursework that has not been handed in. It is representative of a zero. In addition, the following may appear for a student in PowerSchool instead of, or in addition to, a numeric grade:



#### **Disclaimer**

A wide range of assessment information is used in the development of a student's final grade. At Archbishop Macdonald Catholic High School, individualized assessments provide specific information regarding student progress and overall performance in class. Student assessment may vary from student to student to adapt for differences in student needs, learning styles, preferences, and paces. It should also be noted that not all assignments are used to determine the final grade, and that scale factors may have been used to determine the weight of individual assignments.

#### **Personal Mobile Device Standards**

Mobile Devices and Social Media Use:

- Personal mobile devices are to be silenced or turned off and stored in the student's assigned locker during the day, which must be locked.
- No personal mobile devices are to be used during the day except for at lunch.

- No social media is to be accessed during the school day.
- The standard for Personal Mobile Devices includes cell phones, SMART watches, earbuds, and headphones
- Non-compliance with the standards will result in consequences of a suspension or loss of privileges such as participation in school trips, or activities, sports teams, and extracurricular activities.

**Laboratory Safety Standard**

Science at Archbishop MacDonald is a hands-on, skill-based discipline involving activities that may entail risk. Safety in the laboratory takes precedence over all instructional concerns. To ensure your safety and the safety of others, the following laboratory safety standard is always in effect:

1. Conduct must be professional. Counter-sitting, throwing, playing, pranking, and unsanctioned experiments are prohibited.
2. Footwear must completely cover the foot. Sandals, slides, and/or clogs are prohibited.
3. Food and/or drink are prohibited.

There is a zero-tolerance policy for violations of the safety standards; failure to comply with these standards will result in immediate exclusion from the lab activity. Additional safety measures that are activity dependent may also be required.

**Expectations**

Unexcused absences and/or lates are unacceptable and may have a negative effect on the grade. Missed coursework may be expected to be completed and may be scored as zero or NHI until submitted (see disclaimer).

**Student Handbook**

<https://archbishopmacdonald.ecsd.net/student-agenda>

**Academic Integrity**

<https://archbishopmacdonald.ecsd.net/archbishop-macdonald-course-outlines>