

CATHOLIC DISTRICT SCHOOL BOARD OF EASTERN ONTARIO
ST. THOMAS AQUINAS CATHOLIC HIGH SCHOOL

SCIENCE – GRADE 10 APPLIED - (SNC2P)
2019 – 2020

TEACHER: Mr. Warner
CREDIT VALUE: 1.0
PREREQUISITE: Grade 9 Academic Science / Grade 9 Applied Science
TEXTBOOK: Science Links 10 – McGraw Hill Ryerson
MINISTRY DOCUMENT: The Ontario Curriculum, Grades 9 and 10; Science, 2008 Revised.

COURSE DESCRIPTION

This course enables students to develop a deeper understanding of concepts in biology, chemistry, earth and space science, and physics, and to apply their knowledge of science in real-world situations. Students are given opportunities to develop further practical skills in scientific investigation. Students will plan and conduct investigations into everyday problems and issues related to human cells and body systems; chemical reactions; factors affecting climate change; and the interaction of light and matter.

OVERALL EXPECTATIONS

The Ontario Curriculum Grades 9 and 10: Science identifies overall expectations, which describe in general terms the knowledge and skills that students are expected to demonstrate by the end of this course. This course is broken down into four different units

Unit A: Scientific Investigation Skills and Career Exploration
Unit B: Biology: Tissues, Organs and Systems
Unit C: Chemistry: Chemical Reactions And Their Practical Applications
Unit D: Earth and Space Science: Earth's Dynamic Climate
Unit E: Physics: Light and Applications of Optics

For the above units, it is expected that students will:

Unit A: Scientific Investigation Skills and Career Exploration

- ✓ demonstrate scientific investigation skills (related to both inquiry and research) in the four areas of skills (initiating and planning, performing and recording, analysing and interpreting, and communicating);
- ✓ identify and describe a variety of careers related to the fields of science under study, and identify scientists, including Canadians, who have made contributions to those fields.

Unit B: Biology: Tissues, Organs and Systems

- ✓ analyse some current technologies or substances that have an impact on human tissues, organs, or systems, and evaluate their effects on human health;
- ✓ investigate cell division, cell specialization, and the organization of systems in animals, including humans, using various laboratory techniques;
- ✓ demonstrate an understanding of the hierarchical organization of cells, from tissues, to organs, to systems in animals, including humans.

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Unit C: Chemistry: Chemical Reactions and Practical Applications

- ✓ analyse how chemical reactions are employed in common products and processes, and assess the safety and environmental hazards associated with them;
- ✓ investigate, through inquiry, the characteristics of simple chemical reactions;
- ✓ demonstrate an understanding of simple chemical reactions and the language and ways to represent them.

Unit D Earth and Space Science: Earth's Dynamic Climate

- ✓ analyse effects of human activity on climate change, and effects of climate change on living things and natural systems;
- ✓ investigate various natural and human factors that have an impact on climate change and global warming;
- ✓ demonstrate an understanding of various natural and human factors that contribute to climate change and global warming.

Unit E Physics: Light and Applications of Optics

- ✓ analyse how properties of light and colour are applied in technology and the impact of these technologies on society;
- ✓ investigate, through inquiry, properties of light, and predict its behaviour in mirrors and as it passes through different media;
- ✓ demonstrate an understanding of characteristics and properties of light, particularly with respect to reflection and refraction and the addition and subtraction of colour.

EVALUATION OF STUDENT ACHIEVEMENT

Each student will be given a variety of opportunities to demonstrate the extent to which she / he have met the expectations of this course. Her / his final grade will be a percentage that represents the student's overall achievement of curriculum expectations based on her / his most consistent level of achievement.

70% Summative Assessments throughout the semester based on all four categories of the Achievement Chart

30% Final Culminating Assessment(s) including exam*

**Each student must complete all final assessments in order to be eligible to receive the credit. The final culminating assessments will be split between the final culminating performance task (10%) and final exam (20%).*

Please note that any outstanding assignments / tests **MUST be submitted prior to the completion of each unit**, otherwise a mark of zero will be given.

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One of the goals of any course is the development of the learning skills and work habits you will need to succeed in the workforce and in life. Your learning skills and work habits (**Responsibility, Organization, Independent Work, Collaboration, Initiative, and Self-Regulation**) will be assessed throughout the semester and will be recorded (separately from your grade) on your report card as follows:

E – Excellent

G – Good

S – Satisfactory

N – Needs Improvement

The continuing development of these skills is essential in Grade 10 as they are critical for success in the later grades, post secondary education and / or the workplace. To that end the students will be shown various strategies and provided encouragement throughout the semester to aid in their skill development.

POLICIES AND EXPECTATIONS FOR THE STUDENT

General Expectations for this Course

- ✓ **AS SAFETY IN THE LABORATORY IS THE NUMBER ONE PRIORITY, ACT IN A SAFE AND CONSCIENTIOUS MANNER AT ALL TIMES.**
- ✓ **Be on time** and fully prepared for each class.
- ✓ **Participate actively** in class by asking questions and sharing your ideas and knowledge.
- ✓ **Demonstrate respect, responsibility, and a positive attitude** at all times – to your peers, your teacher, and yourself. Remember where you are and what you are trying to achieve. Appropriate language, clothing, and participation are expected each day of the semester.
- ✓ Maintain a **quiet, productive learning environment** by focusing on tasks, staying seated, and raising your hand to speak. Interrupting the thinking and work of others is not acceptable.
- ✓ **Be proactive** - YOU are responsible for your achievement in this class. Completing all course work is essential for success. Take advantage of the extra help offered and let me know as soon as concerns arise - solutions can always be found together!
- ✓ **No use of cellular phones / electronics / texting in class.** Students are asked to leave their electronics in their locker. If they bring their electronics to class, they are expected to put them in the designated box at the front of the class. Failure to follow these procedures will result in a detention.

Course Materials and Resources

REQUIRED TEXTS Pearson Investigating Science 10

REQUIRED MATERIALS 3-ring binder with dividers
pencils and eraser(s)
blue or black pen
highlighter
scientific calculator (using iPods as calculators is NOT permitted.)
agenda or equivalent for tracking homework, assignments, tests, etc.
ENTHUSIASM!! ☺

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Notebooks

A separate 3-ring binder with three dividers is recommended for this course. To help you remain organized, it is suggested that the content of your binder be organized as follows:

- ✓ course outline sheets
- ✓ class notes/work and homework organized by date (Divider 1)
- ✓ all quizzes, tests, and other assessments *with corrections* (Divider 2)
- ✓ study notes and miscellaneous (Divider 3)

Quizzes, Tests / Assignments, and Lab Activities

Quizzes may be given at any time during a particular unit of study. They provide immediate feedback of the student's understanding of current material. They do NOT count towards your final mark.

You will be given reasonable notice for all tests and assignments. Tests are to be written on test day or at lunch on the first day back to school. See the **Attendance** section for more information on testing.

All assignments must be completed neatly, accurately, and to the best of your ability for the assigned due date (for the beginning of class unless otherwise stated). **Be sure to demonstrate clear, precise communication skills as well as your depth of understanding of concepts in all work.** Late or missed assignments may affect your grade.

If you are having difficulty meeting a deadline, please speak with the teacher immediately to arrange time at lunch to catch up. Concerns can always be addressed if we work together – do not hesitate to speak with me as soon as they arise.

A **parent signature** will be required for all summative work (and, at times, for formative work as well).

Lab Exercises and Activities

Formal laboratory reports and short laboratory activities will be assigned throughout the course. You are expected to complete the reports neatly, accurately and promptly. These assignments provide you with a unique opportunity to demonstrate your communication and creative skills as well as the depth of your understanding of concepts.

Homework

It is important that assigned questions and homework be completed in a timely manner. Often, time will be given in class to complete homework however, some work might have to be completed at home. Either way, homework should be completed by the next class day (*including checking answers*) and will be checked regularly. Come to class ready to ask questions - it is your responsibility to seek assistance when you have encountered difficulty with assigned work. Asking questions is part of learning! **There will be homework approximately 3 times a in this course.**

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A Note About Extra Help

There are many opportunities for you to receive extra assistance. I am available by appointment both at lunch and after school. **It is very important that you seek assistance with difficulties as soon as they arise.** Asking questions is part of learning anything!

Attendance

The attendance philosophy of St. Thomas Aquinas Catholic High School reflects our belief that your daily participation in the classroom learning experience is an integral part of the learning process. Prompt, regular attendance with all required materials and completed work on hand is a requirement for this course. If you are absent, it is your responsibility, on your own time, to update your notes, prepare for tests, etc. **If you are leaving the school during the day for an activity or appointment, you must submit any due work to the teacher before you leave.**

It is up to you to see the teacher and make arrangements for any **missed tests or in-class assignments** on the day of your return. You should be prepared to write any missed test or in-class assignment on the day you return to school, probably during your lunch time. Failure to make arrangements with the teacher or to supply a note may result in a mark of zero/incomplete (i.e., the opportunity to demonstrate learning has been missed).

Cheating and Plagiarism

Cheating includes things like copying homework, projects, looking at someone else's test, using cheat notes and opening texts during tests. Work will be checked for plagiarism. Use references for paraphrased work. Refer to your agenda for the consequences.

Buddy System

Since each of us is away occasionally, it is recommended that you choose a buddy in the class who can help you stay up to date. In turn, you will be this person's buddy. When your buddy is absent, you should: (a) pick up an extra copy of any handouts and put your buddy's name and the date on them; (b) keep clear, legible notes for your buddy to copy; (c) take note of any special announcements made in class regarding assignments or tests; and (d) contact your buddy at home if there are any special messages (only in rare circumstances). * ***If you miss class it is your responsibility to catch up on your own time and to pick up information and handouts from your buddy.*** *

Buddy's Name: _____ Phone Number: _____

About Textbooks

The book assigned to you is your responsibility; you are responsible for handing in the same book in good condition on time. If you lose or damage a text, you will be required to pay for it.

BOOK TITLE	NUMBER ASSIGNED	BOOK RETURNED

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September 2019

Dear SNC2P Parent/Guardian

I am very pleased to be your child's science teacher this semester. If at any time you have questions about the course or your child's progress, **please do not hesitate to contact me**. I check my email daily and therefore that may be the easiest method of contacting me, however you may also phone me if you wish. If I am unavailable when you call, leave a message and I will contact you as soon as possible. It is important to deal with questions and concerns immediately so that solutions can be found together.

I will be using a combination of Microsoft Teams and OneNote for our class, which are part of the Office 365 platform that all students have access to. The following will be posted on-line for all units: completed class notes, homework, learning goals, videos, unit review and any other pertinent assignment handouts. Please encourage your daughter / son to access this resource as soon as possible to ensure that any login and access issues are corrected early in the semester.

My goal for your daughter / son this year is success. I evaluate success not only in terms of grades, but also in the development of the knowledge of "scientific thought and process" needed to succeed in science and our fast changing world.

Students will be evaluated in four areas that include:

Knowledge / Understanding: Usually students find these questions easiest as they test their basic knowledge on a subject

Communication: As a science teacher I also take responsibility for the literacy skills our students, and communication is a big part of this. These questions provide an opportunity for the students to clearly communicate their understanding of concepts using words, diagrams etc.

Application: These questions will test the students on how they apply their knowledge in real life situations.

Thinking / Inquiry: These questions link together various ideas from the unit, or other units. These are traditionally the more difficult questions.

All four types of questions will be used regularly to check the student's progress.

Homework will sometimes be completed during class hours, however there will be times when homework completing outside of class hours is required. If your daughter/son have trouble with their homework, please have them see me right away.

Some other things you can do to help your daughter / son to succeed in science:

- Schedule a regular "homework time" and provide them with a quiet area to work that is free of distractions such as Snapchat, Instagram, Tik Tok, and X-Box.
- Ensure that your daughter / son are **verifying their solutions** against those in the back of the textbook. I will be reiterating to the students that doing homework, and not verifying correctness, is counterproductive and not good use of their time.
- Ask how her / his quizzes, skills homework and formal projects or assignments are going
- Offer to work on a problem together, or work with them to review concepts and calculations
- Encourage them to communicate their findings and understanding clearly and concisely

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Please provide the information requested below, sign, and return this form to confirm that you have received and read this letter and to also confirm the following:

- **I have read the course outline and understand the curriculum, procedural, and evaluation expectations of this course.**
- **I am aware of the Microsoft Team site for this class and that I should set up notifications for new postings to the site.**

Please provide an email address that you check regularly. My main method of communication regarding your daughter / son will be done via email.

Student Name: _____

Student Signature: _____

Parent / Guardian Contact Name: _____

Parent / Guardian Email address: _____

Home Phone / Work Phone: _____

Parent/Guardian Signature: _____

Additional comments:

Is there anything special I might need to know?

Sincerely,

Cory Warner

Phone: 613-445-0810

Email: cory.warner@cdsbeo.on.ca