ST. THOMAS AQUINAS
CATHOLIC SECONDARY SCHOOL

QUALITIES OF THE SCIENCE TEACHERS OF STA

- Engaging
- Deep knowledge and passion for Science
- Ability to build a very safe and caring environment with their students
- Are capable to reach all learners and to differentiate instruction

MEET OUR AMAZING SCIENCE TEACHERS

MS. L. BALOGH:

Teaching Specialties: Biology (All Levels, IB), Chemistry (All Levels, IB)
Physics (All Levels)

Leanne is currently completing a Psychology Degree and is fluent in Spanish

Coach/Supervisor: Singer for the STA Choir, Running Raiders, CrossFit Fridays

MS. A. EMMERSON

MR. A. FINELLI

Teaching Specialties: Biology (All Levels), Grade 9 and 10 Science

Coach: Senior Football and Senior Boys Soccer

MR. B. FRASER

Teaching Specialties: Biology (All Levels)

Coach: Girls and Boys Soccer

MS. L. Jasmin

Teaching Specialties: Chemistry (All Levels)

Coach/Supervisor: Ski Team and Girls Rugby

MS. J. KAM

Teaching Specialties: Biology (All Levels, IB)

Coach/Supervisor: Field Hockey and Supervisor for HOSA

MS. M. KISS

Teaching Specialties: Biology (All Levels, IB)

MS. S. Merrick

Teaching Specialties: Biology (All Levels, IB)

Coach/Supervisor: Cross Country, Swimming, Girls Rugby

MR. P. MOORE

Teaching Specialties: Biology (All Levels, IB)

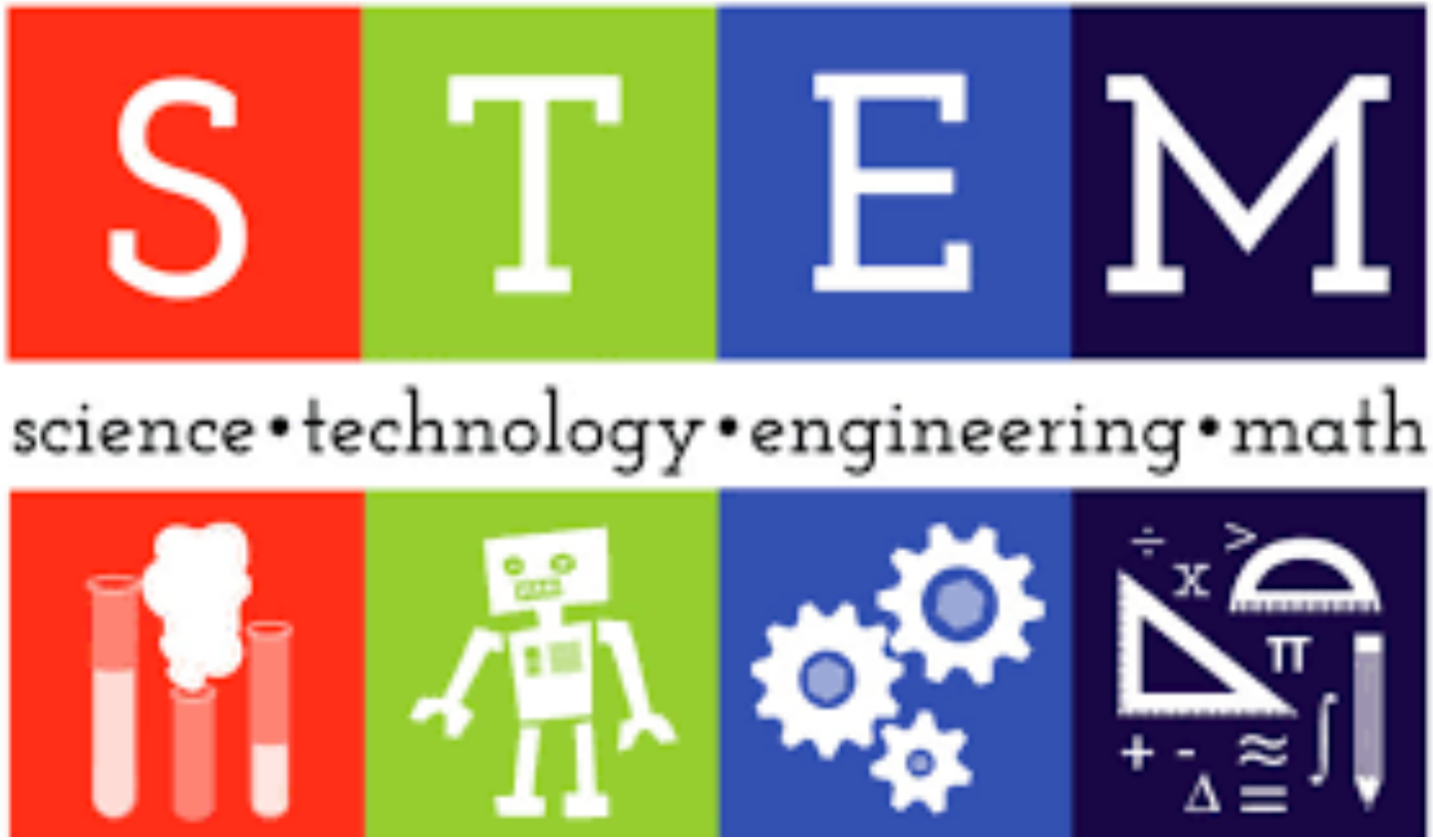
Coach/Supervisor: Curling and Physics Club

MR. R. DIDIODATO

Department Head

Teaching Specialties: Chemistry (All Levels, IB)

Supervisor: Voyage Science, Robotics Club, Astronomy Trip and Weight Room



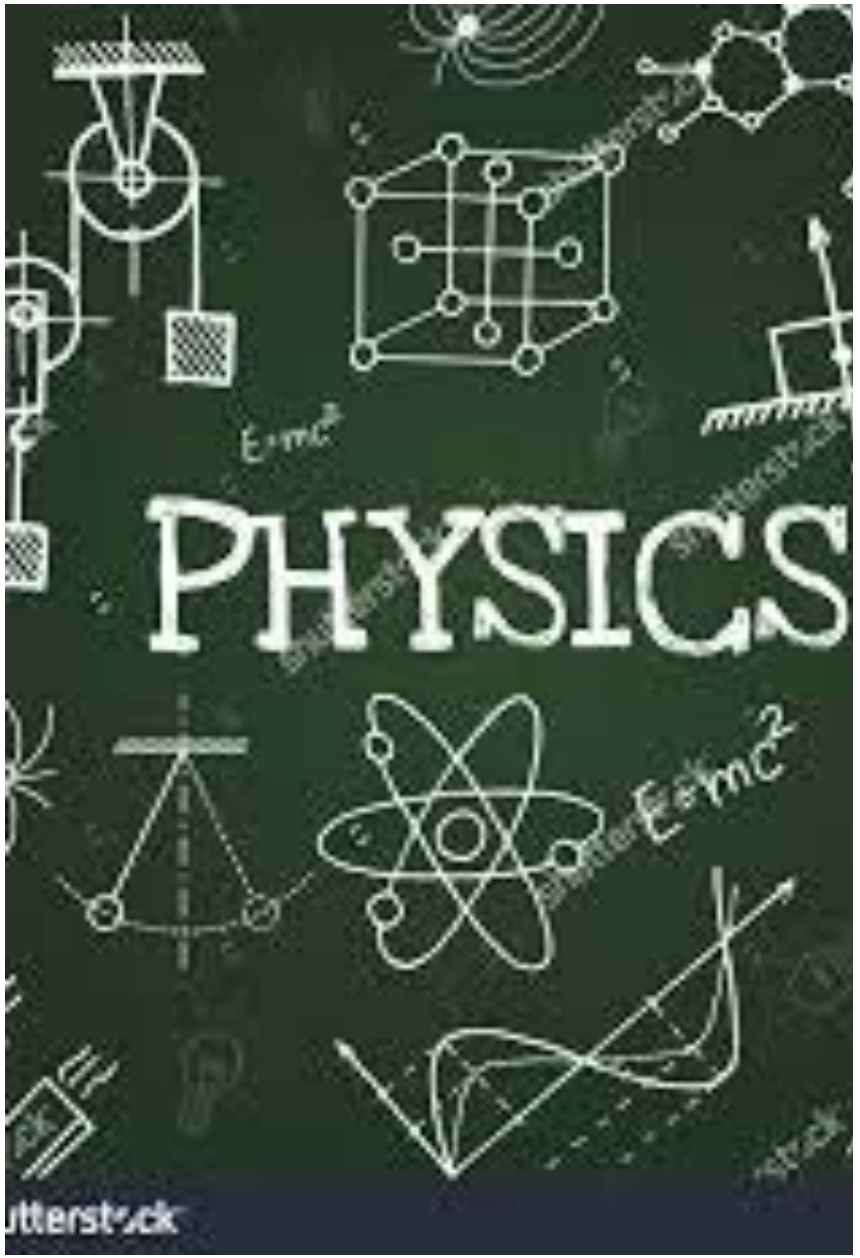
STEM TRIPS

- HUMBER HUMAN CADAVER LAB
- UNIVERSITY OF GUELPH ANATOMY LAB
- MCMASTER UNIVERSITY LAB SKILLS
- ONTARIO SCIENCE CENTER
- TORONTO ZOO
- UNIVERSITY OF TORONTO ASTRONOMY PUBLIC LECTURES

SCIENCE CLUBS

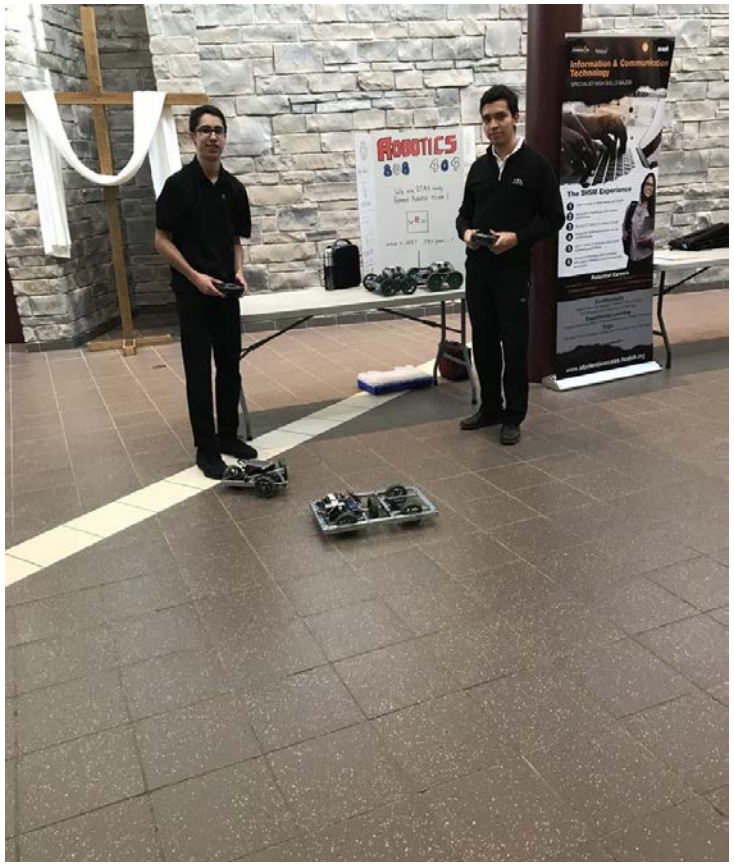
Students perform chemistry, biology, and physics demos to elementary students to increase interest and excitement in STEM

SCIENCE CLUBS



STUDENTS PERFORM EXPERIMENTS AND DEMONSTRATIONS WITH MR. MOORE

SCIENCE CLUBS



ROBOTICS CLUB

Students learn how to build and program robots to perform special tasks

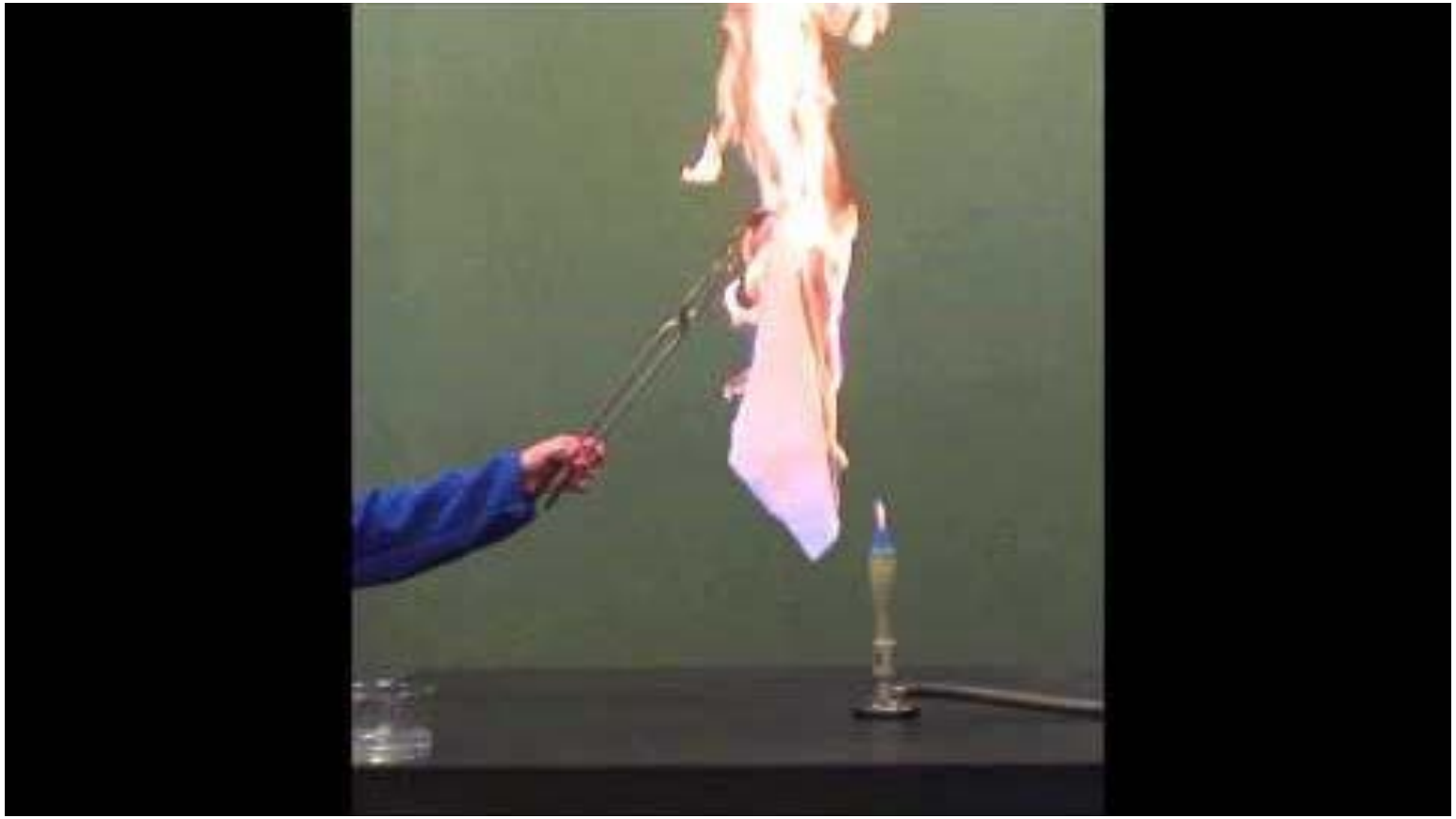
EMBRACING 21st CENTURY LEARNING

WE USE COMPUTER SIMUALTIONS SUCH AS GIZMOS, PHET, AND KAHOOT TO REINFORCE, REVIEW, AND BUILD DEEP CONCEPTUAL KNOWELDGE OF SCIENCE CONCEPTS

WANT TO LEARN MORE ABOUT GIZMOS CLICK *HERE*

WANT TO LEARN MORE ABOUT PHET CLICK *HERE*

Our Staff Perform Demos and Students Complete *Many Experiments to Address Misconceptions and Consolidate Scientific Theory And Laws (One of my Personal Favourites to Show Combustion and the Density of Liquids)*

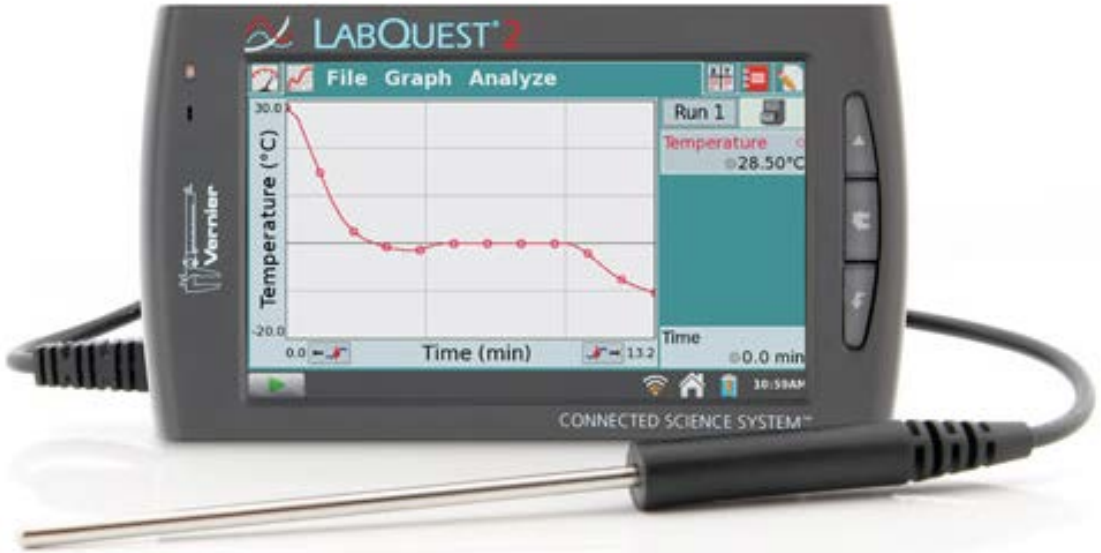


OUR LABS

Are well equipped with state-of-the lab equipment and material such as:

- ***Glass-ware and Molecular Model Kits***
- ***Dissection specimens for grades 10 to 12***
- ***Electricity equipment (Grade 9 Curriculum)***
- ***Optics (Grade 10 Science Curriculum)***
- ***Chemicals to perform a multitude of experiments***

Students will be given the opportunity to use Probe ware in Senior grades and IB:



VERNIER LABQUEST INTERFACE

The interface collects and help students analyze scientific data

The Interface and probes can be used to measure:

1. ***pH***
2. ***Temperature***
3. ***Light***
4. ***Gas pressure***

GRADE 9 SCIENCE CURRICULUM

Elementary Science and Technology	Secondary Science
Understanding Life Systems →	Biology
Understanding Matter and Energy →	Chemistry
Understanding Earth and Space Systems →	Earth and Space Science
Understanding Structures and Mechanisms →	Physics

The science courses in the Grade 9 and 10 curriculum are offered in two course types: academic and applied. The course types are defined as follows:

Academic courses develop students' knowledge and skills through the study of theory and abstract problems. These courses focus on the essential concepts of a subject and explore related concepts as well. They incorporate practical applications as appropriate.

Applied courses focus on the essential concepts of a subject, and develop students' knowledge and skills through practical applications and concrete examples. Familiar situations are used to illustrate ideas, and students are given more opportunities to experience hands-on applications of the concepts and theories they study.

GRADE 9 SCIENCE CURRICULUM - BIOLOGY

OVERALL EXPECTATIONS

By the end of this course, students will:

B1. assess the impact of human activities on the sustainability of terrestrial and/or aquatic ecosystems, and evaluate the effectiveness of courses of action intended to remedy or mitigate negative impacts;

B2. investigate factors related to human activity that affect terrestrial and aquatic ecosystems, and explain how they affect the sustainability of these ecosystems;

B3. demonstrate an understanding of the dynamic nature of ecosystems, particularly in terms of ecological balance and the impact of human activity on the sustainability of terrestrial and aquatic ecosystems.

GRADE 9 SCIENCE CURRICULUM - CHEMISTRY

OVERALL EXPECTATIONS

By the end of this course, students will:

C1. assess social, environmental, and economic impacts of the use of common elements and compounds, with reference to their physical and chemical properties;

C2. investigate, through inquiry, the physical and chemical properties of common elements and compounds;

C3. demonstrate an understanding of the properties of common elements and compounds, and of the organization of elements in the periodic table.

GRADE 9 SCIENCE CURRICULUM – EARTH AND SPACE SCIENCE

OVERALL EXPECTATIONS

By the end of this course, students will:

D1. assess some of the costs, hazards, and benefits of space exploration and the contributions of Canadians to space research and technology;

D2. investigate the characteristics and properties of a variety of celestial objects visible from Earth in the night sky;

D3. demonstrate an understanding of the major scientific theories about the structure, formation, and evolution of the universe and its components and of the evidence that supports these theories.

GRADE 9 SCIENCE CURRICULUM - PHYSICS

OVERALL EXPECTATIONS

By the end of this course, students will:

E1. assess some of the costs and benefits associated with the production of electrical energy from renewable and non-renewable sources, and analyse how electrical efficiencies and savings can be achieved, through both the design of technological devices and practices in the home;

E2. investigate, through inquiry, various aspects of electricity, including the properties of static and current electricity, and the quantitative relationships between potential difference, current, and resistance in electrical circuits;

E3. demonstrate an understanding of the principles of static and current electricity.

GRADE 9 AND 10 PRE-IB

Our IB learners are taught A modified Ministry of Education Curriculum.

Additions and Modifications of the Pre-IB Grade 9 Curriculum:

a) Significant Figures, exact and inexact numbers, uncertainty and percentage error.

b) Collecting, Analyzing and Writing an Internal Assessment (Required in the IB program)

c) Modifications to the Chemistry and Biology unit to prepare IB students to succeed in Grade 11 and 12 HL or SL (Modifications will be introduced in the 2020/2021 or 2021/2022 school year)

If you want to learn more about the Ministry of Education Grade 9 and 10 Curriculum please click *HERE*

QUESTIONS OR CONCERNS, PLEASE CONTACT:

Mr. R. DiDiodato The Department Head of Science

didiodator@hcdsb.org