

**St. Peter Catholic High School
Specific Course Outline Information**



Course Title: Science and Technology
Teacher: Mrs. Bastasic
School Year: 2016-2017
Ministry Guideline: The Ontario Curriculum – Science and Technology Grades 1-8
Grade: 8 Immersion/Core

Course Summary

The purpose of this course is to have students develop a thorough knowledge of basic concepts, which they can apply in a wide range of situations. They must also develop the broad-based skills that are so important for effective functioning in the world of work: they must learn to identify and analyse problems and to explore and test solutions in a wide variety of contexts. The goals for students are:

- a. to relate science and technology to society and the environment;
- b. to develop the skills, strategies, and habits of mind required for scientific inquiry and technological problem solving; and
- c. to understand the basic concepts of science and technology.

These goals are equally important. They can be achieved simultaneously through learning activities that combine the acquisition of knowledge with both inquiry and design processes in a concrete, practical context. At the same time, these learning activities must enable students to develop the communication skills that are an essential component of science and technology education.

The teaching of Science provides excellent opportunities to reinforce and expand students' understanding of the Gospel values and Catholic teachings. The integration of the Catholic Graduate Expectations (<http://preciousblood.hpcdsb.edu.on.ca/OCGExpectations.pdf>) is authentically connected to both process and content. In some cases a natural fit exists with what is being taught (the content). In other cases the teaching and learning strategies offer authentic opportunities to make connections (the process). This course emphasizes extensive discussion and the making of connections to students' own lives and experiences. Activities and culminating tasks frequently include group work and collaborative learning. On these occasions the teacher is able to connect and strengthen the Catholic Graduate Expectations.

Core Content and Sequence

The science and technology expectations are organized into four strands, which are the major areas of knowledge and skills in the science and technology curriculum. The four strands and the topics from science and technology are:

1. Life Systems - Cells
2. Matter and Energy - Fluids
3. Structures and Mechanisms - Systems in Actions
4. Earth and Space Systems - Water Systems

Text(s), Essential Materials and Other Specific Details for this Course

Text: *Investigation: Sciences et Technologie 8/Investigating Science and Technology 8* (Students will have access to hard copy of textbook in class only. E-book is available on-line at www.sciencesource.ca login: gr7/8.science password: super.science)

Other Materials:

- | | |
|-----------------------------|--------------|
| blue and red pens | pencils |
| ruler | highlighters |
| loose leaf paper | dividers |
| calculator | graph paper |
| lab book (40 page notebook) | |

The Report Card

Student assessment is based on the four following categories of skills in Science and Technology

- Understanding of basic concepts
- Communication of required knowledge
- Inquiry and design skills
- Relating of science and technology to each other and to the world outside the school

For each of these categories, there are four levels of achievement. Please refer to the following standards.

Achievement Level	Percentage Mark	Range Summary
4+ 4 4-	90 to 100 85 to 89 80 to 84	A very high to outstanding level of achievement. Student has demonstrated the required knowledge and skills. Achievement exceeds the provincial standard
3+ 3 3-	77 to 79 73 to 76 70 to 72	A high level of achievement. Student has demonstrated most of the required knowledge and skills Achievement meets the provincial standard
2+ 2 2-	67 to 69 63 to 66 60 to 62	A moderate level of achievement. Student has demonstrated some of the required knowledge and skills Achievement is below, but approaching the provincial standard
1+ 1 1-	57 to 59 53 to 56 50 to 52	A passable level of achievement. Student has demonstrated some of the required knowledge and skills in limited ways. Achievement falls much below the provincial standard
Below level 1 (< 1)	Below 50	Insufficient achievement of curriculum expectations Student has not demonstrated the required knowledge and skills. Extensive remediation is required

Level 3 (70 – 79%) is the provincial standard. Teachers and parents can be confident that students who are achieving at level 3 are well prepared for work in the next grade or the next course.

TEAR OFF AND RETURN THE BOTTOM PORTION OF THIS PAGE TO YOUR CHILD'S SCIENCE AND TECHNOLOGY TEACHER (<teacher name>, <Room #>)

I _____ have read and understand the contents of this course outline. Parent Name
(Please Print)

Student Name _____ (Please Print)

Parent Name _____ (Please Sign)

Date _____